

SOCIAL AND ECONOMIC POLICY  
WORKING PAPER

# ESCALATING FOOD PRICES:

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The threat to poor households and policies to safeguard a Recovery for All

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Escalating Food Prices: The threat to poor households and policies to safeguard a Recovery for All

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February 2011

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## Executive Summary

This working paper: (i) briefly reviews possible causes of the food price spike that began in mid-2010; (ii) examines recent local food price movements in 58 developing countries during 2010; (iii) discusses the adverse impacts of food price increases on households; (iv) presents a rapid desk review of international and domestic policy responses in 98 developing countries under a three-pillar policy framework—supporting consumption, boosting production and regulating/managing food markets; and (v) calls for urgent and coordinated policy actions by national governments and the international community.

After outlining the possible causes of soaring global food prices, including weather shocks, exchange rate fluctuations and financial speculation, the paper analyzes local food price trends in 58 developing countries using data from the Food and Agriculture Organization's (FAO) Global Information and Early Warning System (GIEWS). The paper finds local food price increases in more than two-thirds of developing countries in our sample during the latter half of 2010, closely trailing those in global food markets, at a slower but still substantial rate of increase (7.2 percent on average between May and November 2010). More importantly, on the aggregate domestic food price levels have remained alarmingly high compared to pre-2007-08 crisis levels (about 55 percent higher, on average, in November 2010 compared to May 2007), implying that poor and vulnerable populations in many developing countries have been relentlessly coping with high food costs. Since 2008, poor households have exhausted coping strategies, such as eating fewer meals, cutting health expenditures, increasing debt and working longer hours in the informal sector, and their capacity for resilience is very limited in 2011. In the recent uptick, the CEE/CIS, Latin America and South Asia regions appear to be those hardest hit.

In light of the danger that unabated increases in food prices pose to the right to food, Millennium Development Goals (MDGs) and social cohesion, the paper then presents a rapid desk review of national policy responses in 98 developing countries to draw insights on what is needed to tackle the renewed food price threat. Using a consumer, producer and regulatory policy framework, we recommend a better policy mix to address both immediate and longer term needs. We further propose a child lens as a guiding principle for designing policy responses to food price increases and achieving food security. Moreover, as many developing country governments are undergoing fiscal consolidation and cutting social protection services and food subsidies in the process, we call for a turn from austerity-based fiscal policies to inclusive, food security responses in developing countries that are threatened by rising food prices. The paper concludes by advocating for urgent policy actions at national and international levels to ensure a "Recovery for All" that will eradicate hunger and malnutrition among children and poor households.

## Résumé Analytique

Ce rapport (i) passe brièvement en revue les causes possibles de la flambée des prix des denrées alimentaires qui a débuté à la mi-2010 ; (ii) examine les fluctuations récentes des prix des denrées alimentaires au niveau local dans 58 pays en développement au cours de l'année 2010, en identifiant si les hausses des prix locaux des denrées alimentaires ont été associées aux augmentations récentes des marchés alimentaires internationaux; (iii) examine les effets néfastes de cette nouvelle inflation des produits alimentaires sur les ménages; (iv) présente un examen rapide des réponses politiques nationales et internationales dans 98 pays en développement suivant un cadre politique comprenant trois piliers - le soutien aux consommateurs, stimuler la production, et la réglementation / gestion des marchés; et (v) appelle à des actions politiques rapides et coordonnées par les gouvernements nationaux et la communauté internationale.

Après avoir décrit les causes possibles de la flambée des prix alimentaires mondiaux, y compris les chocs climatiques, la fluctuation des taux de change et la spéculation financière, le rapport analyse les tendances des prix des aliments au niveau local dans 58 pays en développement en utilisant les données de l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (FAO). Il constate que ces prix ont augmenté dans plus des deux tiers des pays en développement inclus dans l'échantillon pour la seconde moitié de 2010, non loin derrière les hausses de prix des marchés mondiaux, bien qu'à un rythme plus lent mais tout de même important (7.2 pour cent en moyenne entre Mai et Novembre 2010). Plus important encore, dans l'ensemble, les niveaux nationaux des prix alimentaires sont restés extrêmement élevés par rapport aux niveaux d'avant la crise de 2007-08 (environ 55 pour cent de plus, en moyenne, en Novembre 2010 par rapport à Mai 2007), ce qui implique que, dans beaucoup de pays en développement, les populations pauvres et vulnérables ont souffert de cette situation. Depuis 2008, bien que les ménages pauvres aient épuisé leurs stratégies d'adaptation, comme manger moins, réduire les dépenses de santé, s'endetter, et travailler dans le secteur informel, leur capacité de résilience est très limitée en 2011. En particulier, la région CEE/ CIS, l'Amérique latine et l'Asie du Sud-est semblent être les plus durement touchés.

Compte tenu du danger que fait peser cette augmentation des prix des denrées alimentaires sur le droit à l'alimentation, ce document présente ensuite un examen rapide des réponses politiques nationales dans 98 pays en développement, afin de lutter contre cette menace répétée. En suivant un cadre politique fondé sur les consommateurs, les producteurs et le marché, nous recommandons un meilleur dosage des politiques pour répondre aux besoins immédiats et à long terme. Nous proposons en outre une approche fondée sur les besoins des enfants comme la force motrice de la politique de lutte contre l'inflation alimentaire. En outre, comme de nombreux gouvernements des pays en développement sont en cours de consolidation budgétaire et réduisent leurs services essentiels de protection sociale et leurs subventions alimentaires, nous favorisons la mise en place de réponses inclusives de sécurité alimentaire, plutôt que d'encourager l'austérité budgétaire, dans les pays en développement menacés par cette hausse des prix. Le document conclut en plaidant pour des actions politiques urgentes aux niveaux national et international pour assurer une « reprise économique pour tous » afin d'éradiquer la faim et la malnutrition des enfants et des ménages défavorisés.

## Resumen Ejecutivo

Este documento (i) examina brevemente las posibles causas del aumento de precios de los alimentos que comenzó a mediados de 2010, (ii) analiza los últimos movimientos de precios de los alimentos locales en 58 países en desarrollo durante el año 2010, (iii) muestra los impactos negativos del resurgimiento de la inflación de alimentos en los hogares, (iv) presenta un sumario de las políticas internacionales y nacionales en 98 países en desarrollo en función de tres pilares: apoyo al consumo, estímulo a la producción y la regulación de mercados alimentarios, y (v) urge a gobiernos y a la comunidad internacional a adoptar medidas rápidas.

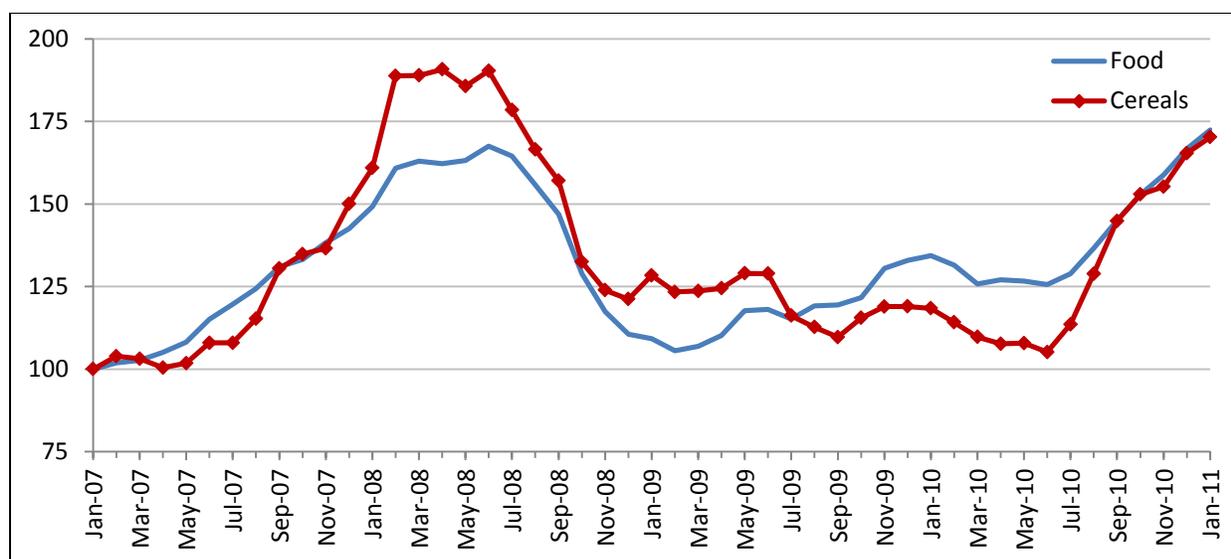
Después de esbozar las posibles causas del aumento de los precios mundiales de los alimentos, entre las que se encuentran los shocks climáticos, las fluctuaciones del tipo de cambio y la especulación financiera, el documento analiza los precios locales de los alimentos en 58 países en desarrollo, utilizando datos de la FAO. Los resultados muestran que, durante el segundo semestre de 2010, los precios locales de los alimentos aumentaron en un 67 por ciento en los países de la muestra, quedando muy de cerca los aumentos de precios en los mercados mundiales (7.2 por ciento en promedio entre mayo y noviembre de 2010). Por otra parte, en un número importante de países en todas las regiones, los niveles internos de precios de alimentos se han mantenido alarmantemente altos en comparación con los niveles pre-crisis 2007-08 (los precios de la comida son alrededor del 55 por ciento más altos, en promedio, en noviembre de 2010 en comparación con mayo de 2007), lo que implica que la población pobre y vulnerable en esos países lleva años sufriendo el elevado costo de los alimentos. Desde 2008, los hogares pobres han agotado sus estrategias de supervivencia, como comer menos comidas, cortar gastos en salud, endeudarse, o trabajar más horas en el sector informal, y su capacidad de resistencia es muy baja en 2011. En particular, los países de Centroeuropa y Europa del Este, Asia Central, Asia Meridional y América Latina están sufriendo aumentos en los precios de los alimentos de manera especialmente grave.

Dada la amenaza que suponen los altísimos costos alimentarios al Derecho a la Alimentación, los Objetivos de Desarrollo del Milenio y la cohesión social, el artículo presenta un sumario de las respuestas internacionales y las políticas nacionales en 98 países en desarrollo para combatir la crisis alimentaria—la mayoría, medidas de corto plazo. El análisis se basa en tres pilares: apoyo a consumidores, estímulo a productores, y regulación del mercado alimentario. Se recomienda una mejor combinación de políticas para abordar las necesidades tanto a corto como a largo plazo. Asimismo, se propone considerar a los niños en el diseño de las políticas de lucha contra la inflación de alimentos. El documento nota con preocupación como muchos gobiernos están contrayendo el gasto público como parte de procesos de consolidación fiscal, recortando servicios esenciales de protección social y subsidios a los alimentos. Los autores hacen un llamamiento para que cambien las políticas fiscales actuales basadas en la austeridad por medidas que protejan la seguridad alimentaria en los países amenazados por el aumento de los precios de los alimentos. El artículo concluye abogando por medidas políticas urgentes a nivel nacional e internacional para garantizar una “Recuperación para Todos” capaz de eliminar el hambre y la desnutrición entre los niños y los hogares pobres.

## 1. Introduction: The Renewed Threat to Poor Households and Crisis Recovery

The international price index for basic foodstuffs rose sharply in the latter half of 2010 and recently exceeded the peak levels of the 2007-08 food crisis (Figure 1). The alarming spike in prices is led by sugar commodities, but also by cereals (e.g. maize, wheat, rice) which are important food staples for many developing country populations, especially for the poor. While the full picture of the drivers behind the price increases continues to develop, there is a growing consensus that high food price levels are likely to persist.

**Figure 1. International Price Indices, Jan. 2007-Jan. 2011**  
(Jan. 2007=100)



Source: FAO (2010a) and authors' calculations

The 2007-08 food crisis clearly demonstrated that soaring international food prices have serious consequences for developing countries, especially those that are dependent on food imports. To the extent that the recent increases in global food prices impact local prices, they further threaten the survival, nutritional status and livelihood of vulnerable populations, especially children, who are still reeling from the income shocks resulting from the cumulative, lingering impacts of the previous food, fuel and financial crises. Poor households all over the world are in an increasingly weak and vulnerable situation in 2011, having often already exhausted available coping strategies, such as eating less meals (and less nutritious foods), reducing limited expenditures on health and essential medicine, selling/pawning assets, racking up household debt and working longer hours in informal activities (adding, for example, to the crowd of street vendors and waste pickers).

Moreover, extreme price movements of agricultural commodities not only threaten the food security of millions of people but also the economic recovery and social stability of developing countries. The impact is compounded as more people lose purchasing power due to rising food costs and are thrust into poverty. Indeed, recent food protests in Algeria, Egypt, Haiti, Jordan, Morocco, Mozambique, Tunisia and Yemen serve as somber reminders of the gravity of increasing food prices and underscore the urgent need for policy attention of—and interventions by—national governments and the international community.

Yet unlike the previous crisis, when developing country governments expanded spending and adopted other measures to mitigate the negative social impacts, the risk of an inadequate response seems particularly high in the current run-up of food prices. For one thing, as many developing country governments began shifting their policy focus to consolidating public expenditures and rebuilding fiscal buffers (IMF 2010a), food subsidies have been removed or are being phased out, and meager social protection schemes are being more targeted, as part of efforts to tighten spending (Ortiz, Chai, Cummins and Vergara 2010). This adds to the concern that, having endured the blows of the previous food, fuel and financial crises, many developing countries are in a weakened position to respond to rising food prices: just as current account balances have deteriorated and strained their ability to pay for a more expensive food import bill, food stock inventories for key staples are also depleted in many countries (e.g. Algeria, Iran, Morocco, Nigeria, Syria and Turkey) (FAO 2010b:31). Such challenges cast doubt on the appropriateness of a policy stance that tightens public expenditure when the need for prompt food responses once again becomes urgent. More importantly, fiscal contraction in the face of rising food prices further threatens a “Recovery for All” that benefits children and poor families (UNICEF 2010).

Indeed, as the degree of urgency for a given developing country depends in part on the global-to-local price transmission process—the scope and pace of which can vary widely across countries—it is critically important to timely monitor the development of local food prices in order to enable prompt, appropriate policy responses.

This working paper: (i) briefly reviews possible causes of the food price spike that began in mid-2010; (ii) examines recent local food price movements in 58 developing countries during 2010, identifying where local food price increases have been associated with the recent increases on international food markets; (iii) discusses the adverse impacts of rising food prices on households; (iv) presents a rapid desk review of international and domestic policy responses in 98 developing countries; and (v) offers a three-pillar policy framework to address short and longer-term food security needs and protect poor children and their families. The paper concludes by calling for prompt and coordinated policy actions by national governments and the international community to ensure a “Recovery for All.”

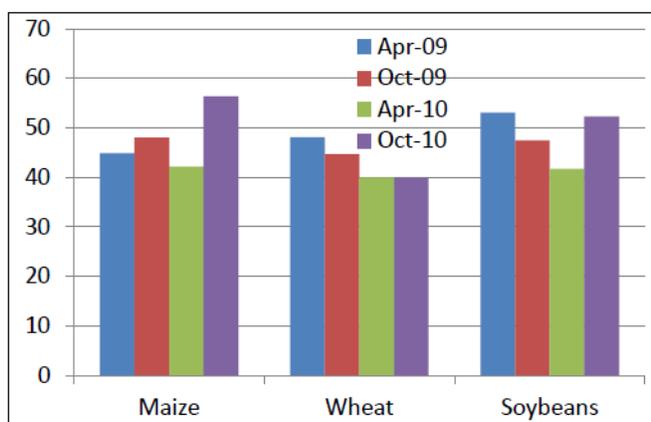
## **2. The Recent Surge of International Food Prices**

After a year-and-a-half of relative stability following a steep decline from the 2008 peak, the FAO’s food price index—which measures monthly (spot) price changes for an international traded food commodity basket composed of dairy, meat, sugar, cereals and oilseeds—increased by more than 30 percent between June and December 2010 (FAO 2010a). In particular, the price of cereals, an important food staple that accounts for more than two-thirds of dietary calories among populations in many developing countries, jumped a staggering 57 percent over the same time period. Understanding the main drivers behind the recent increases is essential to identifying appropriate policy responses aimed at reducing price volatility and steep price increases in international food markets.

The earlier 2007-08 food crisis is attributed to a variety of causes: expansion of biofuel production (e.g. higher demand for corn and sugar), high oil prices, exogenous supply shocks (e.g. bad weather and droughts), government policies (e.g. export bans and prohibitive taxes), high transportation costs, increasing prices for agricultural inputs, exchange rate fluctuations and the use of commodities by financial investors (the so-called “financialization of commodities”). As research continues to generate more evidence, some of these factors appear to play a bigger role in the recent price increases of essential staple foodstuffs, including corn, rice, soybeans and wheat.

- *Weather shocks.* Droughts in Eastern Europe and Argentina, and heavy rains in North America and Australia, led to production shortfalls in cereals (e.g. wheat), starchy roots (e.g. cassava) and oilseeds (e.g. soybeans). This may have had an unusually unnerving impact on international food markets where the memory of the 2007-08 precipitous price climb remains fresh. For instance, on 5 August 2010, Russia announced a ban on the country’s grain exports, which sent European wheat futures prices up by more than 12 percent in a single day. Coupled with news of bad weather in several key exporting countries, the price of wheat soared nearly 90 percent between June and December 2010.<sup>1</sup>
- *Exchange rate fluctuations.* In the latter half of 2010, the US Dollar depreciated nearly ten percent against major currencies (United States Federal Reserve 2011). As internationally traded food commodities are often quoted in US dollars, the weakening currency led to higher commodity prices (FAO 2010c). In fact, the recent increases are less dramatic, albeit still substantial, when adjusted by a basket of currencies. This implies that when the US dollar weakens, consumers in a dollar-pegged economy pay even higher domestic prices for imported food items compared to consumers in a flexible exchange rate economy, all else being equal.
- *Pressure from financial speculation.* Financial flows into food commodity markets since mid-2000 have been massive compared to the amount of underlying physical commodity stocks (Box 1). While indicative data on recent activities in food commodity derivatives are slow to emerge, recent evidence from the Chicago Board of Trade (CBOT) markets seems to show increased speculative trades in some food commodity groups, such as maize and soybeans (Figure 2), which have also been associated with increased price volatility. Over the counter (OTC) activities, which are substantial and outside of regulated markets such as the CBOT, are also adding pressure on food prices.

**Figure 2. Non-Commercial Trading Interest of Selected CBOT Markets**  
(in percentage of total open interest)



FAO (2010c:106)

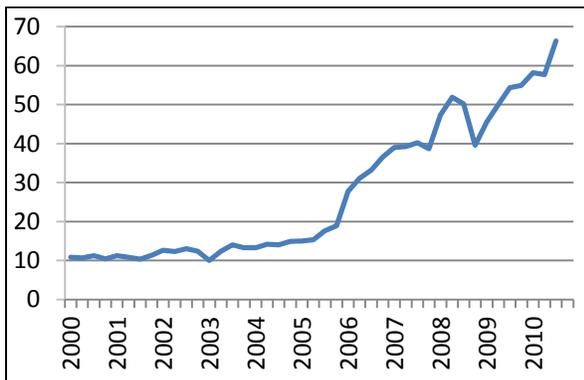
<sup>1</sup> Financial Times on 5 August 2010: “Russia Grain Export Ban Sparks Price Fears.”

### Box 1. Financial Speculation, Food Prices and the Case for Enhanced Regulation

There has been a significant increase of financial flows into commodities over the past five years. Between 2005-10, the number of futures and options traded globally on commodity exchanges nearly quadrupled reaching more than 66 million contracts in late 2010—not including OTC trades—of which trading in food commodities accounts for a small but fast-growing share (Figure 3). Unregulated OTC activities also exploded during this period, reaching a nominal outstanding amount of \$12 trillion in non-gold commodity contracts in 2008 (Bank for International Settlements 2010). Excess liquidity in financial markets played a significant role in this rapid increase, as major institutional investors, which were generally unconcerned with agricultural market fundamentals but rather in gaining short-term returns, moved into commodity derivatives markets, generating a commodity bubble (Baffes and Hanjotis 2010).

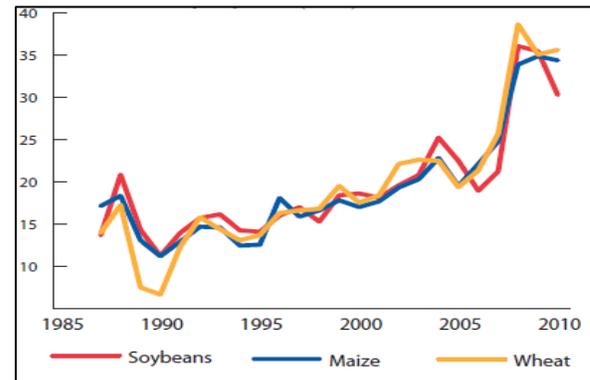
Commodity futures are instruments that, in principle, should be useful to producers and consumers as they “hedge” against price risks. However, only two percent of futures contracts end in the actual delivery of the physical commodity, while 98 percent are traded before their expiration date by investors who are purely seeking speculative gains (FAO 2010e). Such activities have contributed to excessive fluctuations in food commodity futures prices and distorted signals for expected prices (Figure 4). By doing so, speculation impedes practical hedging strategies and imposes significant unanticipated costs and undue burden on food farmers, processors and distributors, potentially contributing to unwarranted changes in local food costs (United States Senate 2009). Given that speculative activity can potentially yield life and death consequences for millions of people across the developing world, the UN and the G20 have called for urgent regulatory actions to improve the functioning and transparency of financial commodity markets to address excessive commodity price volatility (United Nations 2009, UNCTAD 2009a-b, G20 Summits Leaders Statement 2009 and 2010).

**Figure 3. Outstanding Contracts on Commodity Exchanges, 2000-10**  
(in millions of futures and options)



Source: Bank for International Settlements (2010)

**Figure 4. Implied Price Volatility of Selected Staple Foods**  
(in percentage)



Source: FAO (2010d)

### 3. Recent Developments in Local Food Prices

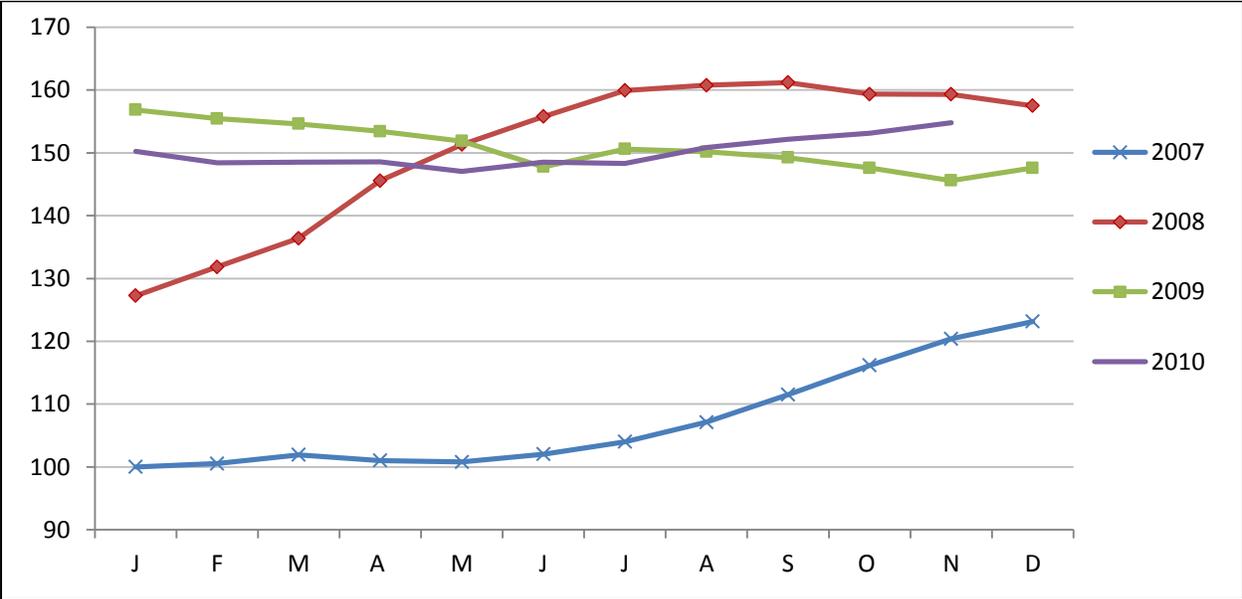
Using data from the Food and Agriculture Organization’s (FAO) Global Information and Early Warning System (GIEWS) (FAO 2010f), we examine recent local food price trends in developing countries. While we do not attempt to establish causality from international prices to local prices, we analyze the extent to which increases in local food prices have been associated with those in international food prices among a sample of 58 developing countries for which the latest GIEWS data are available (November 2010). We construct a local (staple) food price index

by taking price data in the GIEWS and weighting the values by the percentage of dietary energy supply (DES) for each country included in the sample.<sup>2</sup> The number of foodstuffs ranges between two and six, with the average local food price index representing three or more food items and covering about half (45.1 percent) of the DES of the population in a given developing country in our sample (see Annex 1 for complete details on the data). While data limitations preclude us from obtaining representative food baskets for each country, the local food price index offers a general depiction of how very recent changes in domestic food prices may impact the consumption behavior—and hence nutritional intake—of developing country populations.

**3.1 Local food prices are high and on the rise in many developing countries**

Following a steady downward movement beginning in late 2008, local food prices started an uptrend in mid-2010 in more than two-thirds of the countries in our sample, closely mirroring the rise in global commodity prices (Figure 5). Between May and November 2010, local food prices increased by an average of 7.2 percent for the sample as a whole—a 14 percent average increase in countries that experienced a positive change—and appeared to be on a trajectory to surpass levels achieved during the zenith of the earlier global food crisis as early as December 2010.<sup>3</sup> Much more alarming, however, is the fact that local food prices never recovered from the 2007-08 crisis. Overall, local food prices decreased by less than ten percent following the height of the price spike in September 2008, and, as of November 2010, they remained, on average, 55 percent higher than before the onset of the previous crisis, in May 2007.<sup>4</sup>

**Figure 5. Local Food Price Indices in 58 Developing Countries, Jan. 2007-Nov. 2010 (or latest available)**  
(unweighted average index values; Jan. 2007=100)

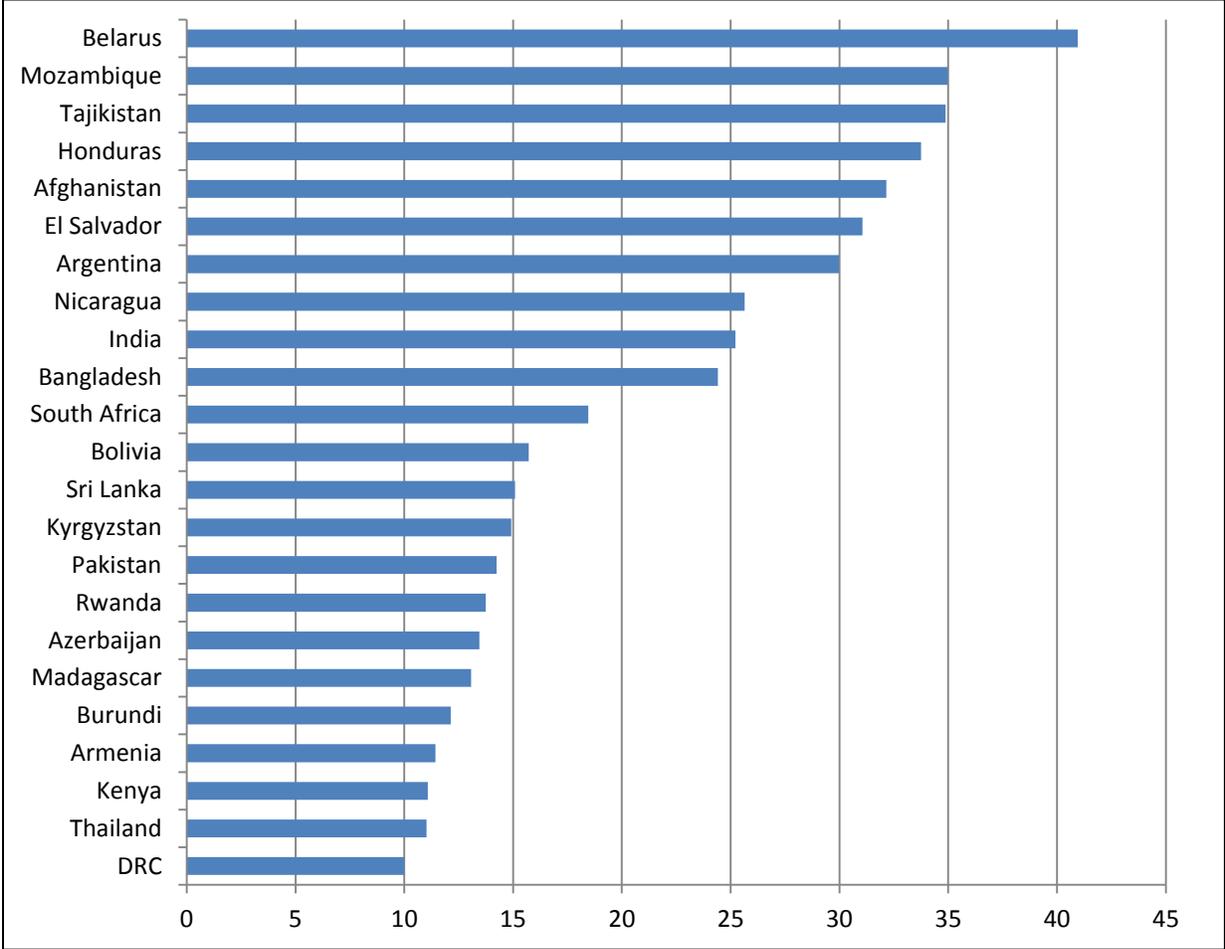


Source: FAO (2010f) and authors’ calculations  
 Note: The sample includes 58 observations through October 2010 and 54 in November 2010

<sup>2</sup> A food price shock can also be examined through the food component of Consumer Price Index (CPI) inflation. However, due to the lag time in reporting such data, this analysis could not be carried out at the time of writing.  
<sup>3</sup> There is a 3-4 month time lag for reporting local price data for all countries included in the GIEWS, so we can only inference this conclusion from the reported December 2010 observations at the time of writing, which is less than half of our sample.  
<sup>4</sup> Changes in local food prices over this time period for all countries in our sample are shown in Annex 1.

This aggregate picture hides important disparities across countries. For example, local food prices increased by more than 25 percent during the latter part of 2010 in ten of the 58 countries in our sample (Figure 6). This reflects a combination of domestic and external factors. For example, the current price spike in India is also attributed a lack of proper storage facilities and infrastructure bottlenecks coupled with overall growing demand.<sup>5</sup> In Honduras, tropical storms led to flooding and crop losses, which further fed higher food prices (USAID 2011).

**Figure 6. Local Food Price Index Changes in Selected Countries, May to Nov. 2010 (or latest available)<sup>67</sup>**  
(in percentage points)



Source: FAO (2010f) and authors' calculations

**3.2 Local and global food price indices move increasingly in tandem during 2010**

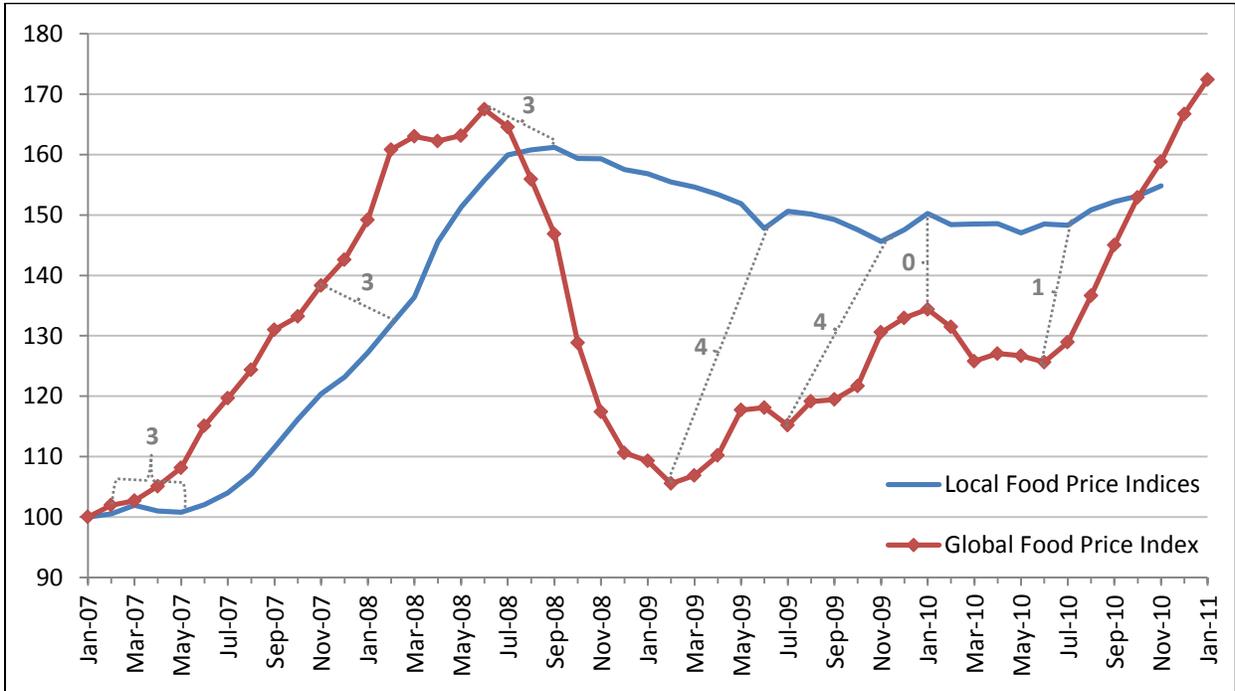
In theory, if a country is linked to the world market in a free-trade environment, domestic prices move with international prices. If domestic prices are higher than global prices, imports will occur until domestic and international prices are equalized, less transport costs. The same equilibrating role is fulfilled by increased exports if national prices are below international prices. As a result, under perfect competition, the transport cost should be the only difference

<sup>5</sup> Reuters on 11 January 2011: "Does India have to Live with High Food Inflation?"  
<sup>6</sup> Changes in local food prices over this time period for all countries in our sample are shown in Annex 1.  
<sup>7</sup> Madagascar value reflects July (not May) to November 2010 due to missing data points.

in the price of a commodity sold on world and domestic markets. In the real world, however, various factors impact the price transmission process, such as public policies (e.g. subsidies, price controls and border measures—tariffs, quotas, bans), exchange rates, consumer preferences and intermediation costs (Rapsomanikis, Hallam and Conforti 2006). As a result, the global-to-local price transmission process—both the reactionary time and magnitude of change—can vary widely across countries.

Our analysis shows that, on average, local food price indices in developing countries trail the global food price index closely, with a lag time of roughly one month in the current price run-up (Figure 7). This contrasts sharply with the earlier food crisis, where the global-to-local price delay was approximately three months during 2007 and most of 2008. This finding generally corroborates other studies that suggest an international-to-national price transmission process of up to six months during the 2007-08 food crisis (Compton et. al 2010 and Keats et al. 2010). While the price lag appears to have lengthened to about four months during 2009, this trend seems to reverse near the start of 2010. Casual observation indicates that the price transmission process more or less equalized during 2010, with the global-to-local price reaction time vacillating between several weeks and months. Although the magnitude of local price changes has not mimicked global movements through November 2010, the increasing harmonization of changes between national and international food prices is a cause for concern, especially given the steep upward trajectory of the global food price index through January 2011. There is a clear need for more rigorous examination of this shift.

**Figure 7. Local Food Prices and Global Food Price Index, Jan. 2007-Jan. 2011**  
(local food prices in unweighted average index values; Jan. 2007=100 for both metrics)



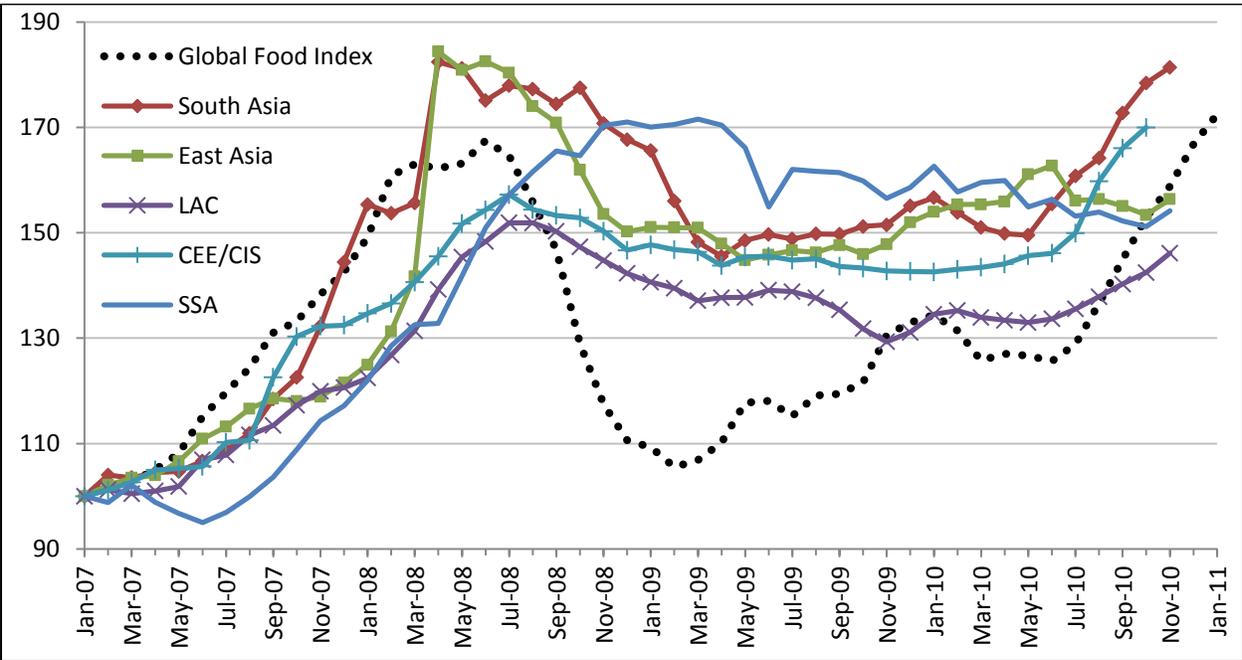
Source: FAO (2010a and 2010f) and authors' calculations

Note: The grey lines connect corresponding local and global food price ascents and descents, with the grey number representing the estimated global-to-local price transmission time number of months

Through November 2010, the pace of local food price increases is clearly slower than during 2007-08, in contrast to movements in the global food price index. For example, the global food price index increased by an average of 5.3 percent per month between June and November 2010, which was slightly faster than the rate of increase during the 2007-08 initial price run-up (4.9 percent between March 2007 and March 2008). Conversely, local food prices, which began to pick up around July 2010, have averaged just over one percent per month through November 2010, which is significantly below the levels experienced during the earlier crisis (3.9 percent per month, on average, between June 2007 and September 2008).

Despite the aggregate findings, there is significant regional variance regarding the price transmission process (Figure 8). For example, local food prices in developing countries in the CEE/CIS, Latin America and South Asia regions mirrored global price movements, as they began to steadily increase around June 2010 just as the global food index started its upward ascent. However, the rate of change among these regions was relatively muted when compared to global price changes. Between June and November 2010, local food prices increased, on average, by 16 percent in the CEE/CIS, by nine percent in Latin America and by 17 percent in South Asia, whereas the global food price index increased by 26 percent over the same time period. Conversely, local food prices in East Asia and Sub-Saharan Africa actually declined by 3.9 and 1.4 percent, respectively, on average, over the same time period. It is also interesting to note that developing countries in the CEE/CIS and South Asia regions were paying higher food prices near the end of 2010 than in the height of the 2008 crisis, while prices remained far below peak levels in other regions, most notably Sub-Saharan Africa.<sup>8</sup>

**Figure 8. Local Food Prices by Regions, Jan. 2007-Nov. 2010 (or latest available)**  
(unweighted average index values; Jan. 2007=100)



Source: FAO (2010f) and authors' calculations

Note: Sample includes 5 countries from South Asia, 5 from East Asia, 16 from LAC, 7 from CEE/CIS and 24 from SSA; MENA is not included since there is data for only one developing country from that region (Djibouti)

<sup>8</sup> The interpretations for East Asia and South Asia should be taken with caution due to the limited number of observations for each region (five).

While the local food price trends among regions are clear, the causes are not. Just as Russia's trade restriction may help to explain part of the disproportionate rise in food prices in the CEE/CIS region, good agricultural harvests in many Sub-Saharan African countries may help account for the region's relative resilience to the international price spike—at least through the end of 2010. However, additional research is needed to better understand the differing local price behaviors observed during the 2007-08 and 2010-11 global food price spikes, both among countries and regions.

The relatively moderate pace of increases in local food prices during the latter half of 2010, on the aggregate, suggests two possible scenarios moving forward. On the one hand, the global-to-local price transmission process could remain relatively muted, and, while local food prices may continue to moderately rise in many developing countries, a repeat of the 2007-08 crisis is avoided. On the other hand, local food price increases could begin to quickly accelerate due to the cumulative pressure of the private sector and governments' ability to pay for food imports as well as the relentless climb of global commodity prices, which continue to rise steeply through January 2011; the strong positive correlation observed between local food prices and the global food price index<sup>9</sup> gives further support to the hypothesis that many developing countries are on the brink of surging food prices. In either case, close monitoring of local food price movements is critical both across and within countries.

### **3.3 Food price increases are most acute in poor countries**

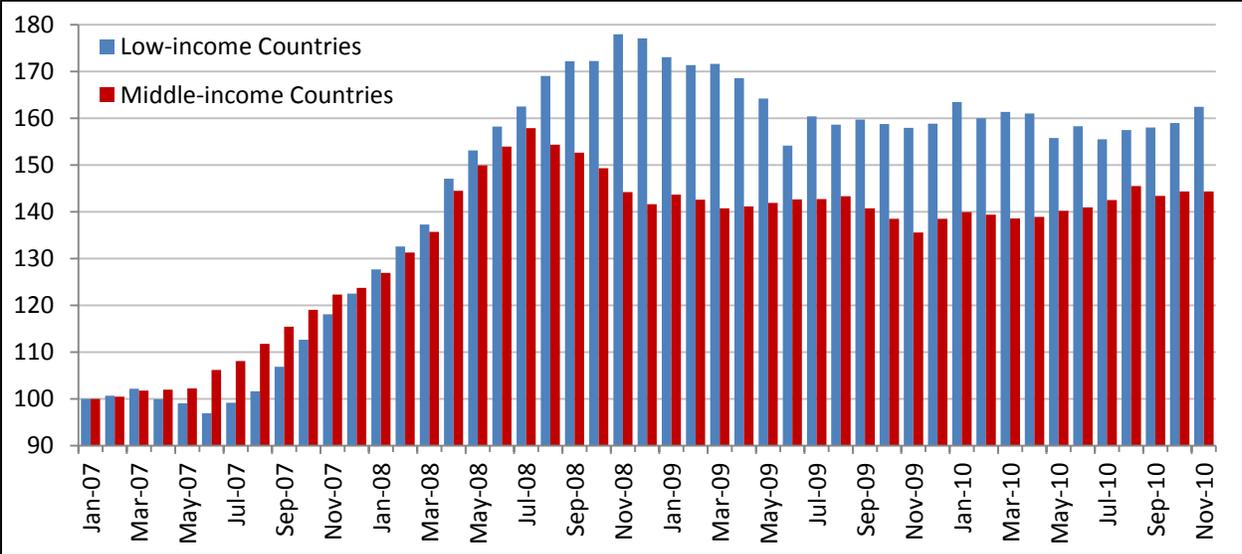
When analyzing the data by different income levels, we find that low-income countries have experienced much larger food price increases than richer, middle-income countries (Figure 9). This trend appears to be consistent over time, becoming magnified during the 2007-08 food crisis and, again, growing pronounced in late 2010. For example, whereas low-income countries were paying an average of 8.3 percent more for foodstuffs in August 2010 compared to middle-income countries, this difference jumped to 12.6 percent as of November 2010. Moreover, food prices increased by about five percent, on average, over the same time period in low-income countries while prices actually decreased in middle-income countries (-0.8 percent).<sup>10</sup>

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<sup>9</sup> Simple statistical analysis confirms the observed positive relationship between global and local food prices. Local food price indices in 81 percent of the countries in our sample are positively correlated to the FAO's global food price index (overall unweighted average correlation value of 0.28), with the top 25 percent showing a strong spearman rank correlation of nearly 0.5.

<sup>10</sup> Similar results are also achieved when examining the data by levels of food security (secure versus insecure) using FAO's (2010g) classification of countries that require external assistance to meet basic food needs.

**Figure 9. Local Food Prices in Low and Middle-Income Countries, Jan. 2007-Nov. 2010 (or latest available)**  
(unweighted average index values; Jan. 2007=100)

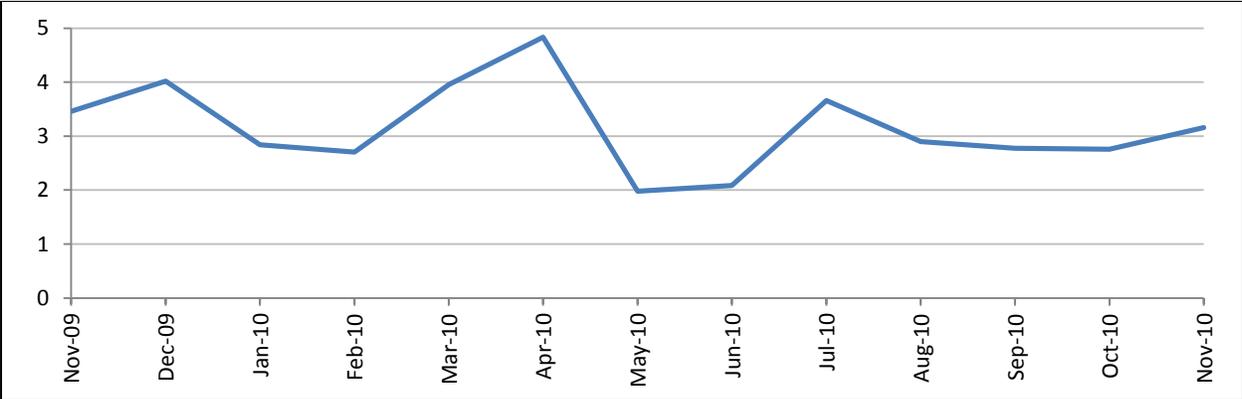


Source: FAO (2010f) and authors' calculations  
 Note: The sample includes 27 low-income and 32 middle-income countries

**3.4 Vulnerable geographic areas fare worse than urban centers**

The aggregate pictures, which are primarily based on major urban centers or national averages, also mask significant variations within countries. In specific locations within countries, food price increases could be considerably larger. The GIEWS database offers recent price data for multiple locations in 30 countries and enables us to look at price movements between major urban centers and food insufficient or vulnerable areas. Indeed, the data corroborate significant variations in local food prices within countries (Figure 10). Between November 2009 and November 2010, populations in vulnerable geographic areas paid a 3.2 percent premium, on average, for the same foodstuffs as their compatriots in urban centers.

**Figure 10. Food Price Differences between Vulnerable Areas and Major Urban Centers, Nov. 2009-Nov. 2010 (or latest available)**  
(unweighted average percent difference of index values; Aug. 2008=100<sup>11</sup>)



Source: FAO (2010f) and authors' calculations  
 Note: The sample includes 30 observations through October 2010 and 27 in November

<sup>11</sup> The base year differs from earlier analyses to maximize intra-country observations.

#### **4. Impacts of Rising Food Prices on Households<sup>12</sup>**

Higher local food prices have serious consequences for households and economies. At the household level, dietary modifications can lead to hunger and malnutrition, especially among children, while losses in purchasing power can increase poverty and inequality. At the state level, higher import bills add further pressure on scarce public resources and reduce the availability and quality of key public goods; governments must also be concerned with rising levels of inflation. When combined, the adverse impacts of soaring food prices can wreak devastating havoc on societies; the three days of violence and death in Mozambique in September 2010, as well as the civil unrest that toppled the 23 year reign of President Ben Ali in Tunisia during January 2011, stand as strident reminders.

Moreover, in 2011 rising local food prices pose additional challenges to poor households that have been coping with the income shocks associated with the earlier food, fuel and economic crises. In upper middle-income countries like Turkey, 73 percent of households have earlier substituted into cheaper food items and 53 percent decreased the amount of food consumption (TEPAV, UNICEF and World Bank 2009). In lower middle-income countries like the Philippines, 85 percent of households lowered food consumption, 55 percent reduced essential medical expenditures and 40 percent borrowed money (Reyes et al. 2010). And in low-income countries, ActionAid, ODI, Oxfam, Save the Children, UNICEF, the World Bank and others have provided ample evidence of more severe coping strategies, such as eating fewer meals, cutting back sharply on health expenditures, mothers working longer hours as street vendors or waste pickers, or forcing children to beg or work in the fields (see Mendoza 2010, among others). In sum, poor households have been adjusting to high food costs for years, and their capacity for resilience is limited in 2011.

##### **4.1 *Hunger and malnutrition***

One of the main coping mechanisms to counter rising food costs at the household level is alternative consumption patterns. At the height of the 2008 crisis, poor families most frequently responded to higher food prices by eating cheaper foods with lower nutritional value, consuming less food in meals (usually mothers and elder sisters among adults, but also infants and young children) and skipping meals (whole days in some cases) (Brinkman et al. 2010 and Compton et al. 2010). Such behavior changes cause micronutrient and caloric deficiencies in the body and ultimately lead to weight loss and severe malnutrition. Altogether, the 2008 food price spike is estimated to have increased undernourishment by nearly seven percent worldwide, or 63 million people (Tiwari and Zaman 2010). Moreover, many countries that were most vulnerable to rising food prices during the previous crisis were those that were already facing high pre-existing levels of malnutrition (e.g. Burundi, Madagascar, Niger, Timor-Leste and Yemen), a trend which appears to remain consistent in the current uptick (Section 3.3).

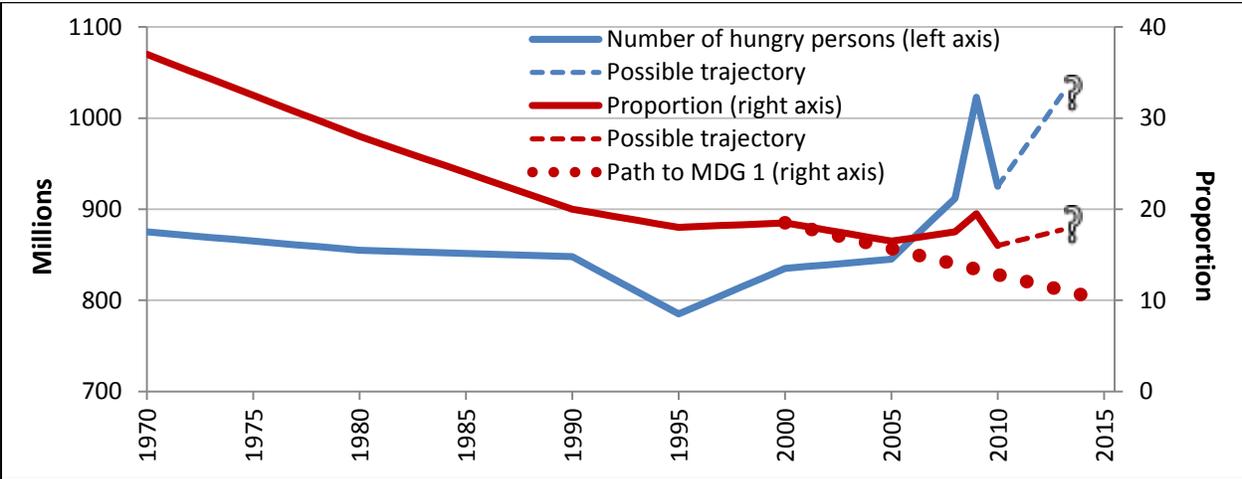
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<sup>12</sup> This section focuses exclusively on the negative impacts of higher food prices. It should be noted, however, that high commodity prices can also create opportunities for developing agricultural production and rural development. Unlike the last crisis, the increases in almost all agricultural prices (e.g. sugar and cotton) in 2011 may benefit farmers in some low-income countries through commodity exports, although the net impact of higher costs for basic food staples is likely to be far worse for the majority of smallholders, landless labourers and the urban poor.

The harmful effects of malnourishment and hunger are most pronounced on young children. In particular, children who suffer from malnutrition while in the womb to 24 months of age can experience irreversible effects later in life in terms of health, cognitive development, productivity and earning potential. Undernourished children also tend to develop their physical and mental capabilities more slowly than healthy children since constant hunger weakens their immune systems and makes them more susceptible to diseases (Victora et.al 2008). Perhaps most worrisome is the finding that malnutrition contributes to more than one third of all under-five deaths (Black et al. 2008). This reflects the fact that children that suffer from such symptoms are physically weak and oftentimes unable to fight off common illnesses. The link between maternal nutrition and children’s health is also critical. For example, poorly nourished women—including those that suffer from low weight for height or anemia during pregnancy—are likely to give birth to underweight babies, thus perpetuating the cycle of under-nutrition; they are also more likely to die during childbirth (UNICEF 2009).

Rising local food costs also pose serious threats to the Millennium Development Goal (MDG). For instance, achieving MDG1 by 2015 is at stake (reducing half the proportion of people who suffer from hunger). While the proportion of malnourished and hungry people has slightly decreased since 1990, the trend is increasing in terms of absolute numbers. The latest FAO estimates put the number of hungry and malnourished persons at 925 million in 2010 (about 16 percent of the total population of developing countries); that figure, however, does not reflect the impact of the recent food price spike, which is likely to be significant (Figure 11). Moreover, given that local food prices have remained generally high in our sample of 58 countries, the estimated fall of hungry and malnourished people in 2010 is questionable; other projections place the number of hungry persons in 2010 potentially as high as 1.3 billion (Brinkman et al. 2010). More research on hunger and malnutrition estimates is warranted.

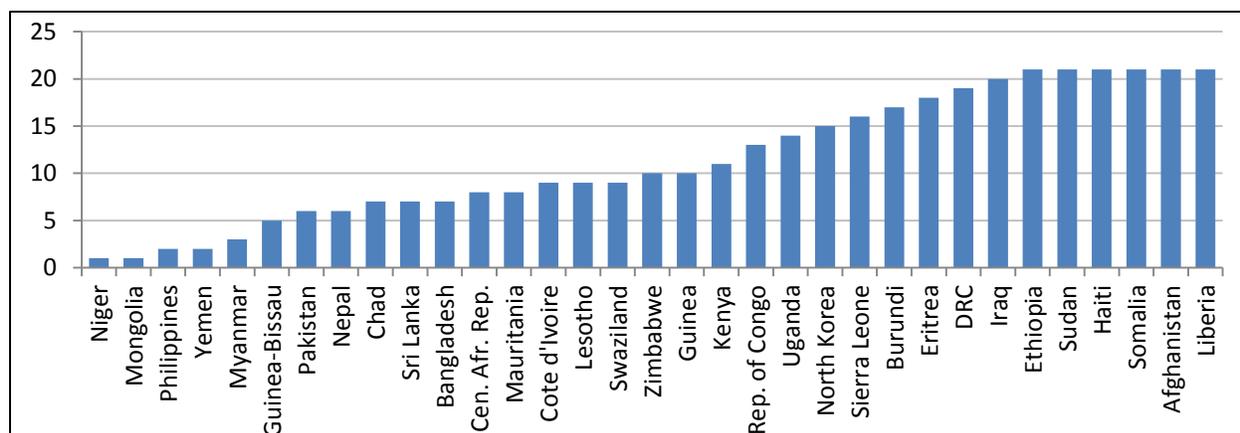
**Figure 11. Undernourishment in Developing Countries**



Source: FAO (2010h and 2006)

The potential setback to MDG1 may be especially severe in countries that are undergoing protracted food emergencies (Figure 12). Given the negative impacts of rising food prices on child and maternal mortality rates, MDG targets 4A and 5A are also in grave danger as a result of high food prices coupled with the global economic and financial crisis.

**Figure 12. Duration of Current Food Emergencies**  
(in number of years)



Source: FAO (2010i)

#### **4.2 Exacerbated poverty and inequality**

Rising local food prices can aggravate both poverty and inequality. Given that poor and vulnerable households spend up to 80 percent of their total expenditures on basic foodstuffs, higher food prices erode their disposable income. In aggregate terms, estimates from the 2007-08 food crisis suggest that higher food prices increased global poverty between three and five percent (Dessus et al. 2008, Ivanic and Martin 2008, and Wodon et al. 2008). Food price increases also impacted the degree of poverty by pushing those already below the poverty line farther down. Evidence shows that the price shock was most pronounced in increasing the depth of poverty among the existing poor in rural areas, while the “new poor”—a trend that was less common—were largely concentrated in urban areas (Compton et al. 2010).

Given the disproportionate negative impact on poor and vulnerable populations, higher local food prices can also increase levels of inequality. In particular, studies of Bangladesh, Viet Nam and Latin America show that inequality rates rose as a result of the 2007-08 food price shocks (Save the Children 2009 and World Bank 2008a). These findings support ADB (2008) estimates that a 20 percent nominal food price increase leads to a one percent increase in the Gini coefficient (actual prices were often quadruple that level during 2008).

#### **4.3 Poorer provision of public services**

Due to the recent climb in world food prices, FAO (2010c) estimates that the poorest countries can expect an 11 percent increase in their 2010 food import bills compared to 2009 and a 20 percent increase for food-deficient countries. For governments, high food prices increase the cost of food assistance and subsidy programmes as well as decrease revenue from lower taxes and tariffs (in food import-dependent countries). The overall fiscal impact was clearly evidenced during the 2007-08 crisis where many developing country governments faced the daunting challenge of financing social protection activities, subsidies and food. Importantly, lower fiscal space for social expenditures, including education and health, further shift these burdens on households and communities, just at a time when their need for public assistance is escalating. Higher food costs can also adversely impact ongoing social protection programmes

as a result of real losses in the value of any cash or income transfers (Overseas Development Institute 2008).

#### **4.4 Inflation and weaker employment-generating growth**

Inflation is a key concern to governments since it typically requires a monetary policy response of increasing interest rates which, in turn, stymie economic activity and threaten employment-generating growth. This was clearly evident during the previous food crisis. While developing countries as a whole saw an average inflation rate of 5.9 percent from 2003-06, inflation jumped to 7.6 percent in 2007 and 8.1 percent in 2008 before tapering off (IMF 2010b); the IMF (2008a) estimated that food price increases accounted for about 70 percent of total inflation among emerging economies. Developing countries in Sub-Saharan Africa and the Middle East and North Africa were hardest hit, with the former peaking at 13.4 percent and the latter at 12.1 percent, on average. In early 2011, many developing country governments began to voice headline inflation concerns as a result of rising domestic food prices. In Indonesia, for example, President Yudhoyono urged households to plant food in their gardens to help ease price pressures.<sup>13</sup>

### **5. Policy Responses through 2010**

The evidence presented above on the multitude of negative effects on households and countries makes an unequivocal case for prompt and adequate policy responses in the face of the renewed threat of high food prices. Policy responses can be understood through a framework based on *supporting consumers* to promote household food security, *supporting producers* to enhance the food supply and *managing/regulating food markets* to reduce the volatility of domestic food prices.

- *Consumers:* The ultimate reason why many local foods remain unaffordable is low living standards and high levels of poverty in much of the world. Nobel Laureate Amartya Sen transformed the understanding of this issue by focusing on the importance of increasing food access. According to Sen, the main problem associated with hunger is distribution and access; his work subsequently raised awareness on the need to address inequity and social justice in order to reduce household poverty and raise incomes, mainly through social protection.
- *Producers:* Agriculture has been neglected in recent decades and is a sector in massive need of investment, as shown by many UN organizations and the World Bank.
- *Managing and regulating food markets:* Like any other market, food is regulated. Sanitary regulations protect consumers across developed countries, and governments have been regulating commodities in physical and financial markets for nearly a century. Given the life and death consequences of price fluctuations in food markets, there is a clear role for government involvement.

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<sup>13</sup> Reuters on 6 January 2011: "Record High Food Prices Stoke Fears for Economy."

Through this analytical framework, a review of the various international and national responses to the 2007-08 food crisis and, where available, of their effects and adequacy, can provide useful insights as to what may be most needed to address renewed challenges to food security. An update of what has happened to some of the responses through 2010 also provides an initial assessment of the extent of the policy actions required moving forward.

### **5.1 International responses**

The United Nations has been calling for the eradication of world hunger for decades, such as through the right to food and the MDGs (Box 2).

When the 2008 food crisis erupted, initial responses focused on supporting consumption and agricultural production. The UN Secretary-General formed the High-Level Task Force on the Global Food Security Crisis. It proposed a Comprehensive Framework for Action to overcome the food crisis, updated in September 2010 (UN 2010), based on a twin-track path that included short-term emergency support and long-term development interventions. It also called for \$25 to \$40 billion annually for food aid, agricultural development, and social protection and nutrition programmes. A Scale-Up Nutrition Framework and Road Map were also prepared in 2010 to ensure sustained improvements in nutrition and the achievement of MDG1 by 2015.

At the G8 meeting in L'Aquila, Italy in July 2009, the G8 countries plus the European Commission (EU), Australia, the Netherlands, Spain and Sweden supported the need for a comprehensive and coordinated international response for food security. Donors pledged \$20 billion under the so-called L'Aquila Food Security Initiative, which supports country-owned plans largely focused on increasing agriculture productivity (G20 "L'Aquila" Statement 2009).<sup>14</sup>

In 2009, calls for regulation were added to the need to support consumption and production. The UN Conference on the World Financial and Economic Crisis urged countries to coordinate a global response to address the financial and economic causes of food insecurity. Several UN reports have noted that higher food prices are not only a result of underinvestment in agriculture, but also of speculative activities in commodity derivatives markets (UN 2009 and 2011, UNCTAD 2009). The G20 group of leading economies has also acknowledged the need for regulation. At the Pittsburgh Summit in September 2009, G20 leaders agreed "to improve the regulation, functioning, and transparency of financial and commodity markets to address excessive commodity price volatility" (G20 Pittsburgh Summit Leaders 2009). And at the G20 Seoul Summit in November 2010, leaders further vowed to "work on the regulation and supervision of commodity derivatives markets" (G20 Seoul Summit Statement 2010).

Most recently, France's President Nicolas Sarkozy has made an international agreement on the regulation of food commodity derivative markets one of his main objectives for France's presidency of the G20, which began in January 2011. The French G20 Sherpa, Jean-David Levitte, and French finance officials point that, given the steep rise in trade volumes in

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<sup>14</sup> Double-counting has been reported, and some donors have not provided additional resources but instead included funds already committed for climate change and other development priorities (Oxfam 2010). The G8's Muskoka Accountability Report (2010) pointed that, while the decline in investment was reversing, the need to monitor financial disbursements was important for transparency and accountability.

derivatives relative to physical trades in certain commodities, financial instruments once intended as simple hedging mechanisms are now determining the price of underlying commodities and not vice versa; “financialized” commodity markets are to be regulated not only to prevent market manipulations, but also to reduce macro-economic, systemic risks.

One notable area where the international community has yet to make substantial progress on food security issues is agricultural subsidies. In 2010, while the European Union paid out €39 billion on direct agriculture subsidies,<sup>15</sup> the United States government spent \$21.3 billion to subsidize mainly large-scale farmers.<sup>16</sup> The use of domestic subsidies in developing countries is discussed in the next section; these are small in magnitude and do not impact international prices. Subsidies in higher income economies, however, can drive international commodities prices down. Thus proponents claim that subsidies provide cheap food for consumers in developing countries. Conversely, detractors point that subsidies in higher income economies hinder the development of agriculture in lower income countries, since they cannot compete and are often advised against minor subsidy use in favor of market forces to boost crop production (the comparative advantage argument purported by wealthier countries). Moreover, lower international food prices due to subsidies have encouraged developing countries to be buyers of food from developed countries, hindering agricultural self-sufficiency and local farm production. Resistance to lower agricultural subsidies from the developed world was one of the main issues that led to the collapse of negotiations of the Doha Round of the World Trade Organization.

### **Box 2. The Right to Food**

Food is one of the most basic human needs, and people are entitled to adequate food that is sufficient, safe, nutritious and culturally acceptable. The right to food was first recognized in 1948 in Article 25 of the Universal Declaration of Human Rights. Since then, it has been repeatedly recognized by other international instruments, including Article 11 of the International Covenant on Economic, Social and Cultural Rights (1976), Article 12 of the Convention on the Elimination of All Forms of Discrimination against Women (1979), and Articles 24 and 27 of the Convention on the Rights of the Child (1989). In September 2000, 189 states further expressed their commitment to the eradication of hunger and poverty by endorsing the Millennium Declaration, which was translated into eight time-bound, measurable goals to be reached by 2015, known as the MDGs.

A number of countries have recently revised their constitutions or passed new legal frameworks to give greater effect to the right to food. Since the mid-1990s, new constitutions, including bills of rights, have been adopted in a slew of countries in Central and Eastern Europe, Africa, Latin America and, more recently, Asia. In India, for example, in addition to passing the Food Security Act in 2010, the government has adopted a number of policy innovations based on the right to food, including acts on universal school meals, employment, social security for the informal sector and the right to information, which, combined, can lead to better food security outcomes (Bonnerjee and Koehler 2010). People and citizenry organizations can demand that governments respect, protect and fulfill appropriate access to, and acceptable quality of, food.

<sup>15</sup> European Union 2010 General Budget: Agriculture and Rural Development.

<sup>16</sup> Budget of the United States Government: FY2011, Historical Tables, Table 3.2, budget function 351.

## 5.2 National policy approaches

Most developing countries responded to the 2007-08 food crisis—and some to the current price run-up in 2010—by implementing a mix of policies aimed at consumers, producers and food markets. These different approaches are broadly summarized below.

- *Supporting consumption:* Policy responses included food assistance (e.g. direct food transfers, food stamps/vouchers and school feeding programmes), price subsidies and controls, cash transfers, reduced consumption taxes and food-for-work schemes.
- *Boosting agricultural production:* This mainly focused on providing subsidies and reducing taxes on grain producers, although some countries also offered other types of incentives to spur agricultural output, such as credit programmes for small farmers.
- *Managing and regulating food markets:* Many developing countries tried to lower domestic food prices by encouraging imports and discouraging exports, most commonly by reducing import tariffs and/or introducing different export restrictions. Building up and releasing strategic food reserves was another frequently employed strategy to stabilize local food prices. A number of governments also intervened in food markets by restricting stockholding by private traders, imposing anti-hoarding measures and restricting futures trading of basic foods.

Our review of various sources from the FAO and the IMF shows that out of 98 developing country governments, 75 have supported consumers, 57 have promoted agricultural production and 76 have intervened in food markets (Table 1; see Annex 2 for country details). While the adoption of these general policy approaches appears balanced on the aggregate, interesting patterns emerge when examining responses across regions and income levels. For example, on average, developing countries in Asia appear the most proactive in terms of supporting consumers and managing/regulating food markets when facing higher food prices, while countries in Sub-Saharan Africa are most inclined to foster agricultural production. Using an income lens, poorer countries are, on average, more reactive to higher food prices across all policy categories when compared to wealthier, upper middle-income countries.

**Table 1. General Policy Responses to Rising Commodity Prices in 98 Developing Countries, 2008-10**

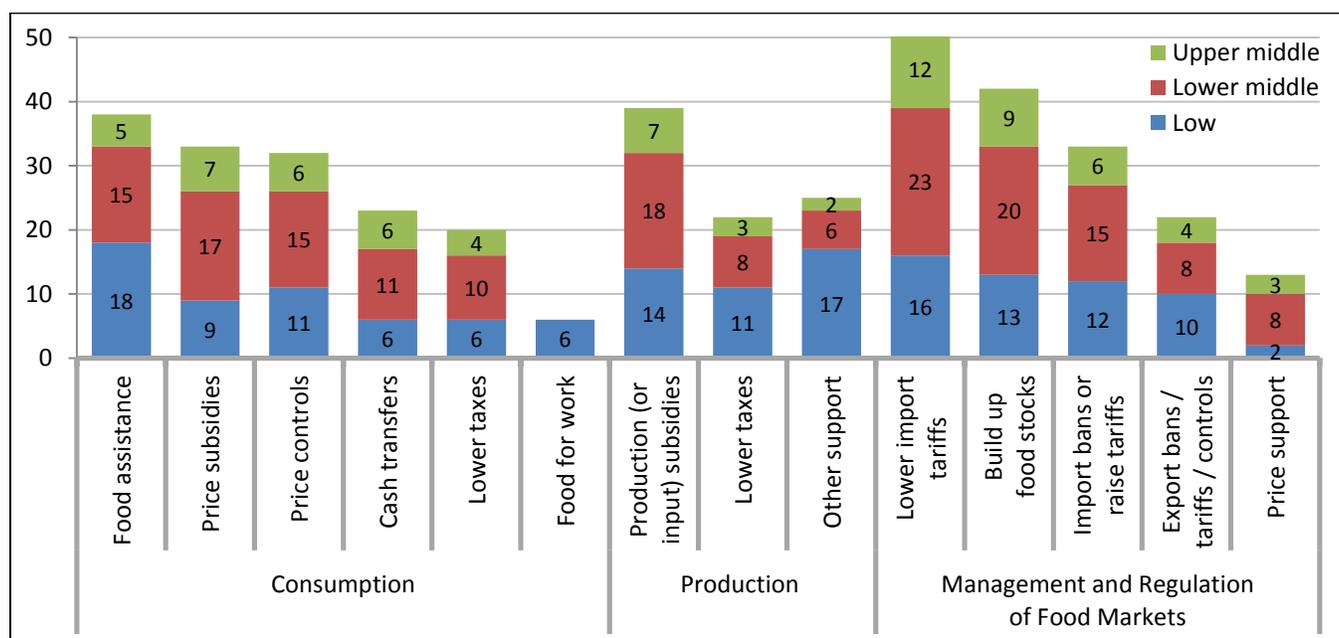
(in number of developing countries)

		Sample Size	General Policy Area		
			Consumption	Production	Managing/Regulating Food Markets
<b>Region</b>	SSA	39	30	29	29
	MENA	13	10	5	12
	LAC	22	17	11	16
	CEE/CIS	6	4	3	4
	Asia	18	14	9	15
<b>Income Level</b>	Low	33	25	25	28
	Lower middle	39	32	22	30
	Upper middle	26	18	10	18
<b>Total</b>		<b>98</b>	<b>75</b>	<b>57</b>	<b>76</b>

Sources: Demeke, et al. (2009), FAO (2009a), FAO (2010a, k and l) and IMF country reports (2009-10)

Analysis of specific responses to rising commodity prices suggests that food assistance, production subsidies and lower tariffs are the most commonly adopted policies by developing countries (Figure 13).<sup>17</sup> On the demand side, about 40 percent of developing countries in our sample have implemented some form of food assistance programme; about one-third of the countries also used price subsidies and price controls to support consumers. On the supply side, production or input subsidies appear to be the preferred policy choice among developing country governments to encourage domestic production (about 40 percent), although a large number (22 percent) have also reduced taxes on grain producers. Regarding the management and regulation of food markets, more than half of developing countries have reduced tariffs to encourage cheaper imports while nearly one-quarter have introduced export bans or other controls to discourage food exports. A large proportion of developing countries in our sample have also focused on stocking strategic food reserves in order to stabilize domestic market prices (43 percent).

**Figure 13. Specific Policy Responses to Rising Commodity Prices in 98 Developing Countries, 2008-10**  
(in number of countries)



Sources: Demeke, et al. (2009), FAO (2009a), FAO (2010a, k and l) and IMF country reports (2009-10)

### 5.3 Policy impact

The impact of the unique national policies adopted to fight rising food prices is less clear than the overall approaches taken. In general, there is limited quantitative information available regarding the extent and coverage of policies and programmes. For instance, while many countries in the different samples reported to have “lowered import tariffs,” the scope and values vary widely (e.g. a single commodity versus a large basket, or a 100 percent reduction versus a five percent reduction). Similarly, a country classified as having a food assistance or a cash transfer programme could be referring to a national programme or a small pilot project in a remote province. Despite the information shortcomings, preliminary analyses of the

<sup>17</sup> These findings largely corroborate other meta reviews of policy responses to higher food prices (e.g. Wiggins et al. 2010, and Wodon and Zaman 2010).

responses adopted during the 2007-08 crisis do offer some insights into which strategies may be most effective moving forward. The impacts of selected consumption, production and food market management-related policies are discussed below.

### **5.3.1 Supporting consumption**

*Food and nutrition assistance:* Developing country governments adopted various food and nutrition initiatives in response to the 2007-08 food crisis. Distributing emergency food aid was a common strategy in poorer countries, such as Afghanistan, Angola, Bangladesh and Cambodia (FAO 2009b). While emergency programmes may effectively meet the short-term food security needs among vulnerable groups, food aid can also act as a disincentive for local producers if continued beyond the initial emergency or if not linked to specific requirements, such as work.

In middle-income countries, conversely, school feeding programmes (e.g. in-school meals, fortified biscuits, take-home rations) emerged as one of the preferred options to deliver food assistance. This reflected the existence of comprehensive programmes in many countries prior to the crisis (e.g. Brazil, China, Honduras and Mexico), as well as the numerous benefits associated with school feeding programmes: easy scalability on short notice, provides a benefit per household that is often more than ten percent of household expenditures, and increases school attendance, cognition and educational achievement among children, especially when complemented by deworming and micronutrient initiatives (World Bank and World Food Programme 2009). For example, after high food prices increased dropout rates and reduced enrolment rates in the Philippines, the government launched an “enhanced” feeding programme to give porridge to public elementary students from pre-selected areas when they attended classes;<sup>18</sup> in South Africa, the government expanded allocations of its school nutrition programme to keep pace with the rate of food inflation (World Bank 2008b).

While school feeding programmes generally served as an effective short-term mitigation measure, they are costly to maintain and do not support infants and toddlers—in other words, those children that are at greatest risk of mortality due to malnutrition—nor children that are too poor to attend school—typically the hungriest and most undernourished. These drawbacks are pronounced in poorer countries that are characterized by overall low school enrollment rates (World Bank and World Food Programme 2009). As a result, school feeding programmes should not be viewed as a standalone panacea, but rather as an effective response to be complemented by other social protection measures. School feeding initiatives may also serve as a good intervention to combat rising food prices in the absence of a cash transfer programme (Lustig 2009).

*Price subsidies:* Universal price subsidies to basic foods tended to provide quick results and were most effective in countries with high levels of poverty where targeting is less relevant. Haiti is one effective example. The government subsidized rice to all households, where more than three-fourths of the population—the poorest segment—consumes about 70 percent of total rice in the country (Demeke et al. 2009). Many countries, however, used targeted price subsidies, with mixed results. In Egypt, the targeted rationing-card of subsidized basic foodstuffs for eligible poor households led to significant leakages to the non-poor and

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<sup>18</sup> Philippine Information Agency on 31 July 2008: “GMA Launches the ‘Enhanced’ Food for School Feeding Program.”

undercoverage in rural areas (Korayem 2010). In Bangladesh, on the other hand, the government launched a self-targeted subsidy programme that allowed consumers to purchase rice at below market prices and succeeded in reaching vulnerable populations, especially in urban areas (World Bank 2008).

*Price controls:* Many developing country governments experimented with various types of controls. For example, Malawi empowered a public agricultural corporation to conduct all maize transactions and set prices, Malaysia imposed a price ceiling on rice sold to consumers, and Sri Lanka fixed maximum retail and wholesale prices for different grades of rice (Demeke et al. 2009). While such measures can be effective in controlling prices in the short run, it is important to note that fixing prices at low levels tends to discourage domestic production (FAO 2009a). Enforcement was also shown to be complex, since it often requires police or armed forces to monitor retail prices and/or enforce a system of fines. Some governments built partnerships with the private sector, which can be an effective strategy to achieve price controls. Mexico, for example, announced a price freeze on 150 basic food items as part of a pact with the National Confederation of Chambers of Industry, which agreed not to pass on higher prices to consumers over a fixed period of time.<sup>19</sup> And in Jordan, the government reached an agreement with the private sector to print the prices of rice and sugar on all packages to avoid retail mark-ups (Janjua 2008).

*Cash transfers:* Cash transfers can be most effective in addressing hunger where social protection systems with wide coverage exist, given that they can provide an adequate income supplement to households. However, social protection coverage tends to be low in most developing countries, and, in general, national administrations were not flexible or well-financed enough and unable to quickly adjust coverage and/or benefits in response to rapidly rising local food prices. In many national programmes, high prices led to a dramatic drop in the purchasing power among beneficiaries. Ethiopia, for example, which has the largest safety net in Africa, increased the transfer value by 33 percent, but the food basket rose in excess of 300 percent (Mousseau 2010). Following the 2007-08 experience, many have recommended that transfer amounts be indexed to inflation and that existing programmes be complemented by food transfers in order to provide the right support at the right time. Many countries are building a social protection floor—which nobody should fall below—to protect the most vulnerable both during and after the crisis.<sup>20</sup> Where a social protection system does not exist, establishing a new cash transfer programme requires extensive start-up time and should not be viewed as an appropriate emergency short-term food security response, unless complemented with other faster instruments to support households.

*Lower taxes:* Reducing consumption taxes, especially on grain, was another widely used policy intervention in both low and middle-income countries. For example, Brazil eliminated taxes (from 9.25 percent) on wheat products,<sup>21</sup> Ethiopia removed value added tax (VAT) and turnover taxes (15 percent) on food grains and flour (IMF 2008b), Kenya removed VAT (16 percent) on

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<sup>19</sup> Los Angeles Times on 19 June 2008: “Mexico is Freezing Prices on Scores of Food Staples.”

<sup>20</sup> The Social Protection Floor Initiative is one of the UN’s Crisis Response Initiatives that promotes universal access to essential social transfers and services, supported by UN agencies, multilateral development banks and civil society organizations. For more information, see: <http://www.socialsecurityextension.org/gimi/gess/ShowTheme.do?tid=1321>.

<sup>21</sup> Reuters on 15 May 2008: “Brazil Cuts Wheat Sector Taxes to Ease Inflation.”

rice and bread,<sup>22</sup> and Madagascar reduced its VAT on rice from 20 to five percent (IMF 2008b). While such measures did soften the price shocks, they are not without fiscal costs. In the case of Brazil, abolishing wheat-based taxes was projected to cost the government \$300 million in lost revenue from May to December 2008.<sup>23</sup>

### **5.3.2 Boosting agricultural production**

In general, the effectiveness of individual measures to support food production during the 2007-08 crisis is difficult to estimate because they were generally taken as part of a package that combined different interventions (Demeke et al. 2009). It must be noted that these measures require time to deliver results (e.g. the next crop) and, therefore, should be complemented with other short-term food security policies to protect vulnerable households.

*Production or input subsidies:* Subsidies, especially on grain production and on inputs such as fertilizer and seeds, were commonly used to reinforce production incentives. In India and Bangladesh, the governments provided subsidies to poor and marginal farmers to mitigate higher costs of production for irrigation and fertilizer (Mousseau 2010). Similarly, the governments of Kenya, Madagascar, Malawi, Tanzania and Zambia introduced or expanded input (mainly fertilizer) subsidy programmes, usually between 30 and 70 percent (Demeke et al. 2009 and IFPRI 2008). Adequate subsidies and distribution of productive inputs can bolster short-term production. However, subsidies alone are insufficient to sustainably transform agricultural systems, especially without other forms of support, such as credit programmes, marketing infrastructure and national agricultural development strategies that also address land and labour issues.

*Other production measures:* Other measures used to support producers during the 2007-08 crisis included improved access to funds and credit facilities, tax exemptions on fertilizer and farm machinery, and increased state investment in the agriculture sector. India stands as a remarkable example, as the government cancelled the entire debt of small farmers in 2008 to encourage production among smallholders—a policy that cost around \$15 billion.<sup>24</sup> And in China, the central government increased financial support for agricultural production by 30 percent in its 2008 budget compared to 2007, mainly to support farmers.<sup>25</sup>

*Acquisition of agricultural land abroad:* While not a common response, a number of countries in Asia, such as China and India, and the Middle East, such as Kuwait, Saudi Arabia and Qatar, responded to higher food prices by buying or leasing land in developing countries, especially in Sub-Saharan Africa, as a strategy to secure basic food supplies or simply for profit. Such land transactions can be highly controversial (UN Special Rapporteur on the Right to Food 2009).

### **5.3.3 Management and regulation of food markets**

*Lower tariffs:* Tariff reductions did not lead to significant food price declines in most developing countries. This largely reflects the reality that the price impact depends on the extent of the

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<sup>22</sup> Xinhua News Agency on 14 Jun 2008: “Kenya’s Food Crisis to Persist despite Budget Proposals.”

<sup>23</sup> Reuters on 15 May 2008: “Brazil Cuts Wheat Sector Taxes to Ease Inflation.”

<sup>24</sup> BBC News on 29 February 2008: “India Cancels Small Farmers’ Debt.”

<sup>25</sup> Xinhua News Agency on 26 March 2008: “China Giving Greater Support to Agriculture to Cool Inflation.”

reduction, and, in general, there was little room to lower tariffs following years of pressure to liberalize trade. For instance, Bangladesh removed tariffs on rice and wheat, but they were a meager five percent to begin with, and Sierra Leone decreased its import tariffs from 15 to ten percent (Wiggins et al. 2010). However, in countries where this policy was still feasible, reducing tariffs was shown to be easy to implement. For example, Morocco sliced tariffs on wheat imports from 130 to 2.5 percent, and Nigeria dropped duties on rice imports from 100 to 2.7 percent (Demeke et al. 2009). While lowering import tariffs can be an attractive option when feasible, it is important to gauge the fiscal cost of lost revenue, which can be significant.

*Export bans/restrictions:* Export control measures were a fast and effective way to protect consumers in the short term during the 2007-08 food crisis. Not only are these trade measures cheap and easy to implement, introducing export taxes also raises government revenue. A host of developing countries were wooed by such benefits and restricted food exports, including Argentina, Cambodia, China, Egypt, India, Kazakhstan, Pakistan, Russia, Ukraine and Viet Nam (Demeke et al. 2009). Unfortunately, such policies are not without their downside. On the one hand, export restrictions led to higher prices for food staples on international markets. On the other hand, they also created disincentives for farmers, and a number of major exporting countries experienced a decrease in cereal planting due to lower output prices coupled with higher input prices (FAO 2009b).

*Food stocks:* The degree to which prices are influenced on the open market depends on the amount of food stock released or made available for release on the market. While the nature and size of domestic food stocks varied greatly between developing countries during 2007-08, the poorest countries had trivial reserves and, hence, little impact on prices in general (Mousseau 2010). However, in countries where food stocks are managed by government agencies that annually purchase grain—such as Bangladesh, India and Indonesia—public reserves can serve as an effective price buffer, limit inflation and provide resources for food distribution or subsidized sales to the poor. The Food Corporation of India (the government’s grain procurement and distribution agency), for example, purchased a record amount of rice and wheat prior to the food crisis, which enabled the government to release enough reserves to stabilize prices (Demeke et al. 2009).

*Restricting or banning futures markets:* Some governments, including India, Pakistan and Thailand, took measures against speculation and enacted harsh penalties for anybody caught hoarding grain. The Philippines even went as far as establishing an Anti-Rice-Hoarding Task Force to find and punish offenders with life sentences in prison for “economic sabotage” (Mousseau 2010).

## **6. Policy Responses for 2011 and Beyond**

Our review suggests that several improvements may be desirable in the renewed charge against the threat of higher food prices. First, a better balance between short-term and long-term policy responses is needed to improve the effectiveness and adequacy of the policy responses to counter rising food prices. Second, as food insecurity facing children poses particularly serious harms to both individual households and the economic future of a country,

a more child-sensitive policy framework is necessary. Finally, there is a timely need to reprioritize expenditure policy towards enabling prompt and adequate interventions that can strengthen food security among the most vulnerable populations.

### **6.1 A sound mix of long-term and short-term interventions**

Our review finds that through 2010, policy responses to rising food prices have overwhelmingly focused on short-term mitigation measures, which is worrisome because temporary strategies are incapable of protecting populations from future food price increases. The limitations of many of the current, shorter-term strategies are further underscored by their general failure to combat domestic food inflation, which continues to hover far above pre-2007-08 crisis levels (Section 3.1). Moving forward, provisional measures are still warranted to protect poor and vulnerable populations from the immediate, adverse impacts of higher food costs—albeit more effectively. But just as important, countries must also adopt a longer-term policy framework aimed at *reducing poverty, securing sustainable food production and adequately regulating food markets* (Box 3).

#### **Box 3. A Long-term Policy Framework**

Poverty reduction is an effective policy objective to anchor the fight against hunger. The ultimate reason why many local foods remain unaffordable is because of low living standards. A main problem associated with hunger is distribution and access rather than insufficient food production (Dreze and Sen 1989). As a result, it is necessary to address inequity and social justice in order to reduce household poverty and raise incomes. This may be effectively achieved through introducing or scaling up social protection programmes to ensure that vulnerable households have access to affordable and nutritious foods—moving towards a universal social protection floor. Over the longer term, reducing poverty requires comprehensive national policy planning, such as equitable National Development Strategies and/or Poverty Reduction Strategies that are aimed at both employment-generating growth and inclusive, equitable social development (UN 2008).

Sustainable food production is another important channel. Transforming the role of agriculture in National Development Strategies requires supporting investment and productivity growth in agriculture, livestock and fisheries. Given that women produce between 60 and 80 percent of food in most developing countries (80 to 90 percent in Sub-Saharan Africa), a gender focus is warranted. Ultimately, effective interventions should support small-scale farming that lifts populations out of poverty by addressing land redistribution, credit access, rural extension services, etc. (see, for example, World Bank 2008c or ActionAid International 2010). Moreover, in a context of climate change, floods and droughts need to be addressed by better irrigation and water management.

Markets matter importantly in ensuring affordable living standards. Regulation can and should play a key role in ensuring that food markets—as well as other markets that affect food prices—are well-functioning and provide sufficient price signals to aid in supply responses and smooth international and interstate food commerce. Some long-term measures aimed at improving national food markets distribution are discussed in recent FAO (2011) publications, but higher food prices were not only a result of underinvestment in agriculture or ineffective food market functioning, but also financial speculation that contributed to commodity price volatility (UN 2009). Thus, there is an equally important need to improve the regulation, functioning and transparency of financial and commodity markets to address excessive commodity price volatility and enhance consumer protection (G20 Seoul Summit Leaders Statement 2010). Collective action at the international level is also needed to ensure global trade policies that favor the poor.

## 6.2 A renewed focus on protecting the next generation... today

Children must be a priority when designing both short-term and long-term responses to rising food prices. While households in every country will adapt uniquely to food price shocks, the potential harm to infants and young children, as well as other highly vulnerable groups, is significant (Section 4.1). Policymakers have a series of rapid responses at their disposal—which often have large, positive spillover effects—such as school feeding programmes, support to childcare services, cash transfers, nutritional supplements and community healthcare services, among others. Regarding longer-term approaches to achieve food security, children must be at the center of any such strategy, whether it be promoting rural development or employment or strengthening social protection, education or health systems. Table 2 below summarizes possible interventions as they correspond to household coping mechanisms and the potential detrimental impacts on children.

**Table 2. National Policy Responses to Protect Children from Rising Food Prices**

(A) Household Response to High Food Prices	(B) Impact on Children	(C) Policy Options	
		Short Term	Longer Term
Increase household income through child labor	Children have less time to attend school or study, or even drop out	<ul style="list-style-type: none"> <li>- Consumption subsidies</li> <li>- Cash or food transfers or workfare programmes to support household income</li> <li>- School feeding programmes</li> <li>- Programmes to prevent school dropouts (attendance incentive funds, awareness campaigns for parents, mentoring programmes, flexible school hours)</li> </ul>	<ul style="list-style-type: none"> <li>- Increase household income through employment-generating growth and ensure a social protection floor</li> <li>- Invest in agriculture and rural development programmes</li> <li>- Adequately manage and regulate food markets</li> </ul>
Increase household income through additional female employment	Mother's spend less time supervising children, breastfeeding, cultivating crops and/or preparing nutritious food	<ul style="list-style-type: none"> <li>- Cash or food transfers or workfare programmes to support household income</li> <li>- Community childcare services</li> <li>- Food and nutritional supplements for pregnant and lactating mothers</li> <li>- Food subsidies</li> </ul>	<ul style="list-style-type: none"> <li>- Points above plus the following:</li> <li>- Support provision of public childcare</li> <li>- Promote gender-sensitive extension services to recognize women's unpaid work in the home and role in food production</li> </ul>
Change consumption patterns	Mothers and children eat less nutritious foods and/or fewer meals	<ul style="list-style-type: none"> <li>- Nutrition programmes, including school and hospital feeding</li> <li>- Cash/food transfers or work-based programmes to support household income</li> <li>- Nutritional supplements to vulnerable groups</li> <li>- Awareness campaigns regarding healthy substitute foodstuffs</li> </ul>	<ul style="list-style-type: none"> <li>- Increase household income through employment-generating growth and ensure a social protection floor</li> <li>- Invest in agriculture and rural development programmes</li> <li>- Adequately manage and regulate food markets</li> <li>- Support the diversification of food staple consumption and production</li> </ul>

(A) Household Response to High Food Prices	(B) Impact on Children	(C) Policy Options	
		Short Term	Longer Term
Households reduce spending in areas such as health, education or water	Children are pulled out of school and/or have less access to health care, vaccinations, medicines, water supply, etc.	<ul style="list-style-type: none"> <li>- Protection or increase of social expenditures in local and national budgets</li> <li>- Consumption subsidies</li> <li>- Cash/food transfers or work-based programmes to support household income</li> <li>- Conditional cash transfers based on children's school attendance and utilization of health services</li> </ul>	<ul style="list-style-type: none"> <li>- Finance free education and healthcare services for children</li> <li>- Ensure access to drinking water</li> <li>- Ensure adequacy of social protection benefits and coverage</li> </ul>

Source: Adapted from Overseas Development Institute (2008)

Responding to children in countries where prices have been escalating requires coordinated action on two twin tracks: short and medium/longer term. This may be carried out in the context of the UN Updated Comprehensive Framework for Action (UN 2010) and other initiatives, such as the UN Scaling Up Nutrition and the FAO's Initiative on Soaring Food Prices (FAO 2011). A series of rapid assessments are needed to design appropriate policy decisions, both in the short and long term. These may include, but not be limited to:

- Understanding food security risks facing children and households, such as changes in food consumption patterns (eating less meals or less nutritious foods), increasing child and mothers' labour to supplement household income, decreasing access to education and health services due to increased household expenditure on food, etc.;
- Assessing the coverage and adequacy of current food assistance programmes (e.g. food distribution, school meals and nutrition supplements), existing social protection systems (including all forms of child support), food subsidies/vouchers, etc.;
- Reviewing current policies (e.g. fiscal, trade, agriculture) and their impact on food prices to identify possible changes in the short and longer term to support consumption, boost production and regulate/manage food markets;
- Examining potential fiscal space to scale up interventions, including food aid flows;
- For shorter term responses, identifying farmers that are best positioned to rapidly respond to price increases, as well as existing capacities for transport and distribution of food, nutrition supplements, agricultural inputs, etc.;
- For medium/longer term responses, identifying obstacles for enhanced agricultural production, with particular attention to small-scale farming, fishing and livestock, as well as effective poverty reduction.

Each country/situation is different and requires tailored policy interventions. If evaluations of the cost-effectiveness of earlier policies and interventions are available, this is clearly a good starting point of analysis. It is also important to emphasize open and participatory processes in policy design, especially since policy decisions are rarely only technocratic and powerful groups may resist change and/or induce policy failure. As a result, public consultations and dissemination of alternatives that are best for children and poor households—who do not have

a strong voice—are necessary to address socially-responsible priorities to combat escalating food prices and ensure a recovery for all.

International coordinated action is also fundamental to ensure food security for children, both in the short and long term. In the short-term, it is critically important that donors support adequate food aid and agricultural development, as well as social protection and nutrition programmes. Yet the world needs to move beyond managing crisis; high food prices and volatility will continue unless their structural causes are addressed.

### **6.3 Fiscal consolidation and responding to higher food prices**

While some governments have continued to introduce measures to address rising local food prices in 2010, UNICEF analysis of public expenditures in 126 developing countries (Ortiz, Chai, Cummins and Vergara 2010) shows that many countries plan to remove or are phasing out crisis response policies in 2010-11 as part of fiscal consolidation efforts (Table 3).

Fiscal adjustment is being pursued by measures such as reducing or eliminating subsidies and further targeting already meager social protection systems. The overall timing and scope of the projected spending contraction raise concern in light of the still fragile and uneven economic recovery and the continued crisis impacts on vulnerable populations, which are being exacerbated by the current run-up in local food prices. Not responding quickly and sufficiently is a risk not only to the survival and security of millions of poor and vulnerable persons, but also to a sustained and inclusive economic recovery. Prioritizing expenditures and/or expanding fiscal space to provide immediate and adequate social protection support to those hardest hit is therefore essential to ensure a “Recovery for All.”

**Table 3. Indicative Selected Adjustment Measures, 2009-10**

Remove/Reduce Subsidies		Further Target Social Protection	
Belarus	Maldives	Armenia	Lithuania
Bolivia	Mexico	Azerbaijan	Maldives
Burkina Faso	Mongolia	Bosnia and Herzegovina	Mauritania
Cambodia	Morocco	Cambodia	Mauritius
Cote d’Ivoire	Nigeria	Fiji	Moldova
Egypt	Republic of Congo	Georgia	Mongolia
El Salvador	Romania	Grenada	Romania
Ghana	São Tomé and Príncipe	Iraq	Syria
India	Sri Lanka	India	Timor-Leste
Iran	Syria	Libya	Ukraine
Libya	Timor-Leste		
Lithuania	Togo		
Malaysia	Tunisia		

Source: Ortiz, Chai, Cummins and Vergara (2010)

## 7. Concluding Remarks

This paper reviews the possible causes of the renewed food price spike that began in mid-2010: weather shocks, exchange rate fluctuations and pressures from financial speculation. Motivated by the detrimental consequences of higher local food prices (e.g. hunger and malnutrition, poverty and inequality, poorer delivery of social services and inflationary pressures), it further examines recent local food price movements in 58 developing countries during 2010 and identifies where local food price increases have been associated with the recent spike of international food prices. We find that, on the aggregate, domestic food price levels have remained alarmingly high compared to pre-2007-08 crisis levels, which means that poor and vulnerable populations in many developing countries have been relentlessly coping with high food costs even before the most recent price increase. Developing countries in the CEE/CIS, Latin America and South Asia regions appear to be undergoing the steepest price hikes (9-17 percent). Moreover, as local food prices continue to their steady ascent which began around July 2010, they will likely surpass the levels achieved during the height of the 2007-08 food crisis in early 2011 if not before. Policy actions in response to rising food prices are therefore urgent and imperative.

Drawing from the experience of the 2007-08 food crisis, the paper presents a rapid desk review of policy responses in 98 developing countries. While many governments adopted complex policy approaches, we find that, on the aggregate, most interventions have been short-term with little focus on reducing poverty or improving long-term food security. The world needs to move beyond managing crisis; high food prices and volatility will continue unless their structural causes are addressed. A twin-track approach of addressing food insecurity in the short-term and longer term development solutions must be pursued in parallel.

The paper offers a policy framework focused on measures for supporting consumers, boosting production and managing food markets to address both immediate and longer term needs. Given that children face the greatest risk of suffering from higher food prices, as well as the overall importance of children's health to long-term economic vitality, we further propose a "child lens" as a guiding principle for designing interventions to fight food price increases and achieving food security. Moreover, as many developing country governments are undertaking fiscal consolidation—and cutting or considering to cut social protection services and food subsidies in the process—we call for a turn from austerity-based fiscal policies to inclusive, food security responses in countries that are threatened by rising food prices.

Global and local food price trends are a reminder that higher food prices are here to stay for the foreseeable future and that economic recovery alone will not be soon or strong enough to avert this persistent threat or protect vulnerable populations. Furthermore, rising food prices jeopardize the global recovery as consumers continue to lose purchasing power and more people are pushed into poverty—or deeper. It is now time to act coherently and decisively to enact comprehensive policy frameworks at national and international levels to ensure a "Recovery for All."

At the national level, we call for policy makers to consider:

- Protecting poor and vulnerable populations from higher food costs as part of the national strategy for socio-economic recovery;
- Guaranteeing the basic right to food to all persons, which helps maintain the legitimacy of governments;
- Considering the long-term economic and social costs of leaving vulnerable populations and children unassisted in the face of higher food costs;
- Planning and implementing longer-term policies to support consumers and producers, as well as manage and regulate food markets, to achieve food security.

At the global level, some of the initiatives that could support and complement the efforts of national governments include:

- Ramping up real-time monitoring and tracking of local food prices (and local supply/demand forecasts) in order to mobilize timely interventions (UN);
- Fulfilling funding and food assistance commitments, especially to food deficit countries (G8, donors);
- Providing technical and financial assistance to agriculture sector investments (UN, development banks, South-South cooperation);
- Promoting a universal social protection floor to support adequate food consumption and essential social services (UN, development banks);
- Improving the regulation, functioning and transparency of financial and commodity markets to address excessive commodity price volatility (G8/G20, UN);
- Addressing the international impacts of agricultural subsidies in developed economies (G8/G20, UN);
- Fostering South-South cooperation on food management and security issues (UN, development banks).

## Annex 1. Detailed Information on the Local Food Price Index

Country	Geographic Area	Food Items	Total DES <sup>26</sup> Represented	Most Recent Data Point <sup>27</sup>	Price Changes (%)		
					05/2007 to 11/2010	05/2010 to 11/2010	08/2010 to 11/2010
Afghanistan	Kabul	Bread, Wheat, Wheat Flour	...	Nov. 2010	55.2	32.2	14.4
Argentina	Rosario and Cordoba	Maize, Wheat	33	Nov. 2010	113.6	30.0	25.6
Armenia	National Average	Bread, Potatoes, Wheat Flour	54	Nov. 2010	26.7	11.4	8.8
Azerbaijan	National Average	Beef Meat, Bread, Mutton and Goat Meat, Potatoes, Wheat Flour	59	Nov. 2010	59.4	13.4	17.1
Bangladesh	Dhaka	Rice, Wheat	79	Nov. 2010	55.3	24.4	6.1
Belarus	Minsk	Bread, Potatoes	29	Oct. 2010	116.2	40.9	24.6
Benin	Cotonou	Maize, Manioc, Rice	48	Oct. 2010	63.7	-0.7	0.7
Bolivia	La Paz	Maize, Potatoes, Rice (estaquilla and grano de oro), Wheat	44	Nov. 2010	55.0	15.7	9.9
Brazil	São Paulo	Maize, Rice (first and second quality), Wheat, Wheat Flour	33	Nov. 2010	21.5	6.2	5.8
Burkina Faso	Dori	Millet, Rice, Sorghum	55	Nov. 2010	21.1	-8.7	-9.6
Burundi	Bujumbura	Beans, Cassava, Maize, Rice, Wheat	50	Nov. 2010	48.1	12.1	12.7
Cambodia	Banteay Meanchey	Rice, Soya Beans	71	Nov. 2010	77.3	0.0	0.0
Cameroon	Bamenda	Bananas, Beans, Maize, Potatoes, Rice	33	Nov. 2010	17.3	4.1	-1.7
Cape Verde	S. Vicente	Manioc, Rice (short and long grain), Wheat Flour	40	Nov. 2010	36.3	-1.6	-2.9
Chad	Moussoro	Maize, Millet, Rice	37	Nov. 2010	12.3	-20.6	-25.2
China	Hubei and Hunan	Rice	27	Nov. 2010	31.6	8.6	7.4
Colombia	Barranquilla	Maize, Rice (first and second quality), Wheat Flour, White Sugar	45	Nov. 2010	32.0	-1.1	0.0
Costa Rica	National Average	Beans (black and red), Maize, Wheat Flour	17	Nov. 2010	69.7	4.3	6.3
Djibouti	Djibouti	Rice (Belem and American), Wheat Flour	51	Nov. 2010	22.7	4.4	-0.2
Dominican R.	Santo Domingo	Maize, Beans, Chicken, Rice	25	Nov. 2010	30.6	-4.0	-4.3
DRC	Kinshasa	Beans, Cassava, Rice	61	Nov. 2010	81.9	10.0	5.7
Ecuador	Quito	Beans, Maize, Potatoes, Rice, Wheat Flour	36	Nov. 2010	42.7	3.9	1.9
El Salvador	San Salvador	Beans (red and red seda), Maize, Rice, Sorghum, Wheat Flour	55	Nov. 2010	47.8	31.1	25.6
Ethiopia	Addis Ababa	Maize, Sorghum (red and white), Teff, Wheat	57	Nov. 2010	70.7	-3.3	-4.6
Guatemala	Guatemala City	Beans, Maize, Rice	46	Nov. 2010	12.1	-1.2	-7.6
Haiti	Port-au-Prince	Maize, Rice, Sorghum	41	Nov. 2010	9.2	-4.0	2.6
Honduras	Tegucigalpa	Beans, Maize, Rice	39	Nov. 2010	36.8	33.8	23.5
India	Patna	Rice, Wheat	51	Nov. 2010	74.9	25.2	16.2
Kazakhstan	Astana	Bread, Potatoes	43	Oct. 2010	40.2	0.6	0.3
Kenya	Nairobi	Beans, Maize	41	Nov. 2010	49.0	11.1	33.1
Kyrgyzstan	Osh	Beef, Bread, Mutton, Potatoes, Wheat Flour	63	Nov. 2010	56.7	14.9	19.7
Madagascar	National Average	Rice (local and imported)	49	Nov. 2010	13.3	13.1 <sup>28</sup>	15.5
Malawi	Mzuzu	Maize, Rice	53	Nov. 2010	73.6	2.3	-1.0
Mali	Bamako	Millet, Rice, Sorghum	45	Nov. 2010	18.7	-1.1	-8.7
Mauritania	Nouakchott	Beef Meat, Camel Meat, Couscous, Rice, Wheat Flour	43	Oct. 2010	27.2	0.3	0.1

<sup>26</sup> Dietary Energy Supply

<sup>27</sup> Observations for December 2010 were not included due to the limited availability at the time of writing

<sup>28</sup> Reflects change from July to November 2010

Country	Geographic Area	Food Items	Total DES <sup>26</sup> Represented	Most Recent Data Point <sup>27</sup>	Price Changes (%)		
					05/2007 to 11/2010	05/2010 to 11/2010	08/2010 to 11/2010
Mexico	Guadalajara	Beans, Maize, Rice	38	Nov. 2010	25.6	3.9	7.5
Mongolia	Ulaanbaatar	Beef Meat, Bread, Mutton Meat, Potatoes, Rice, Wheat Flour	63	Nov. 2010	40.2	-21.9	-11.4
Mozambique	Nampula	Maize, Rice	30	Nov. 2010	123.4	35.0	28.9
Nicaragua	National Average	Beans, Rice, Maize	50	Nov. 2010	88.4	25.6	20.2
Niger	Niamey	Millet, Rice, Sorghum	62	Nov. 2010	14.8	-22.7	-20.5
Nigeria	Kano	Maize, Sorghum	20	Nov. 2010	111.9	-9.7	-8.7
Pakistan	Multan	Rice (irri and basmati), Wheat, Wheat Flour	44	Nov. 2010	116.0	14.2	14.8
Panama	Panama City	Beans (poroto and red), Lentils, Maize, Rice	38	Nov. 2010	43.1	2.7	2.1
Peru	Lima	Bread, Chicken, Maize, Potatoes, Wheat Flour	45	Nov. 2010	19.1	0.7	-0.9
Philippines	Manila	Rice (regular and well milled)	46	Nov. 2010	44.6	0.0	0.0
Russia	National Average	Beef Meat, Bread, Pork Meat, Potatoes, Rice, Wheat Flour	48	Nov. 2010	53.6	8.7	6.6
Rwanda	Kigali	Beans, Maize, Rice	17	Nov. 2010	25.9	13.8	11.3
Senegal	Matam	Millet, Rice, Sorghum	43	Nov. 2010	22.4	-2.5	-8.7
Somalia	Bossaso	Maize, Rice, Sorghum	67	Nov. 2010	215.7	3.2	-1.2
South Africa	Randfontein	Maize (yellow and white), Wheat	48	Nov. 2010	-3.4	18.5	15.4
Sri Lanka	Colombo	Rice, Wheat Flour	54	Nov. 2010	67.8	15.1	13.1
Sudan	Al-Fashir	Millet, Sorghum, Wheat	46	Nov. 2010	254.7	-10.7	-18.9
Tajikistan	National Average	Potatoes, Wheat Flour	61	Nov. 2010	93.3	34.9	24.7
Tanzania	Dar es Salaam	Beans, Maize, Rice	46	Nov. 2010	85.9	2.2	15.1
Thailand	Bangkok	Cassava, Maize, Rice (5% and 25% broken)	45	Nov. 2010	36.4	11.0	11.5
Uganda	Kampala	Beans, Maize, Rice	18	Nov. 2010	26.2	-4.5	22.3
Uruguay	National Average	Rice, Wheat	36	Nov. 2010	38.6	3.7	-0.1
Zambia	National Average	Maize (breakfast meal, roller meal and white), Rice	53	Nov. 2010	48.8	-12.1	-3.2
<i>Averages</i>		3.1 unique food items per country	45.1	55/58 = Nov. 2010	55.4	7.2	5.8

## Annex 2. Policy Responses to Rising Commodity Prices in 98 Developing Countries, 2008-10

Country	Consumption						Production			Management and Regulation of Food Markets				
	Food assistance	Cash transfers	Food for work	Price subsidies	Price controls	Lower taxes	Production (or input) subsidies	Lower taxes	Other support	Lower import tariffs	Export bans / tariffs / controls	Build up food reserves	Price support	Import bans or raise tariffs
<b>Sub-Saharan Africa</b>														
Angola	0						0		0					
Benin					0				0		0			0
Botswana							0							
Burkina Faso	0	0		0	0	0	0	0		0	0			
Burundi	0						0	0	0	0				
Cameroon	0				0			0		0		0	0	0
Cape Verde	0				0					0				
Central African Rep.									0					
Chad	0			0									0	
Côte d'Ivoire										0				
DRC	0								0					
Ethiopia	0	0	0	0	0	0		0	0		0	0		0
Gabon				0										
Gambia										0				
Ghana	0			0			0			0				
Guinea										0	0			0
Ivory Coast					0	0								
Kenya	0		0				0	0		0		0		0
Lesotho								0						
Liberia	0	0								0				
Madagascar	0		0		0	0	0		0	0	0			
Malawi					0	0	0				0	0		0
Mali	0		0	0					0	0				
Mauritania	0			0						0		0		
Mozambique		0		0			0	0						
Namibia	0						0							0
Niger				0	0		0	0	0	0				
Nigeria	0				0		0	0	0	0		0		0
Republic of Congo				0		0								
Rwanda	0						0		0	0		0		
Senegal				0	0	0	0		0	0		0		0
Sierra Leone												0		
South Africa		0						0		0		0		
Sudan					0	0		0						
Tanzania							0		0	0				0
Togo					0	0	0					0		

Country	Consumption						Production			Management and Regulation of Food Markets				
	Food assistance	Cash transfers	Food for work	Price subsidies	Price controls	Lower taxes	Production (or input) subsidies	Lower taxes	Other support	Lower import tariffs	Export bans / tariffs / controls	Build up food reserves	Price support	Import bans or raise tariffs
Uganda	0							0	0	0				
Zambia							0		0		0	0		0
Zimbabwe						0			0				0	
<b>Middle East and North Africa</b>														
Algeria					0		0		0		0			0
Djibouti				0	0	0		0					0	
Egypt		0		0			0		0	0	0			0
Iran				0					0					0
Iraq	0			0										
Jordan	0	0		0	0	0			0					0
Lebanon				0					0					0
Libya									0					
Morocco					0	0	0	0	0					
Syria													0	0
Tunisia		0					0							
Turkey									0					
Yemen		0		0					0					
<b>Latin American and the Caribbean</b>														
Argentina							0			0	0			0
Belize					0				0					
Bolivia								0	0	0	0			0
Brazil	0	0				0		0	0		0			0
Chile		0												
Colombia										0				
Costa Rica		0			0				0					
Cuba				0										
Dominican Rep.				0		0								
Ecuador	0	0			0		0		0					0
El Salvador		0		0	0		0		0					
Guatemala	0								0					
Guyana		0				0								
Haiti	0	0			0									
Honduras	0						0	0	0	0				
Jamaica							0							
Mexico	0	0			0		0		0					
Nicaragua	0				0		0		0					
Peru	0							0						
Saint Lucia					0									
Suriname	0	0				0								

Country	Consumption						Production			Management and Regulation of Food Markets				
	Food assistance	Cash transfers	Food for work	Price subsidies	Price controls	Lower taxes	Production (or input) subsidies	Lower taxes	Other support	Lower import tariffs	Export bans / tariffs / controls	Build up food reserves	Price support	Import bans or raise tariffs
Venezuela													0	
<b>Central and Eastern Europe and the Commonwealth of Independent States</b>														
Azerbaijan						0	0			0				
Kazakhstan							0				0	0	0	0
Russia				0						0		0	0	
Turkmenistan				0			0							
Ukraine										0	0			
Uzbekistan				0										
<b>Asia</b>														
Afghanistan	0							0				0		0
Bangladesh	0	0	0	0	0		0	0	0	0	0	0	0	0
Cambodia	0		0						0	0	0			0
China	0	0		0	0	0	0	0	0	0	0	0	0	0
Fiji	0				0									
India	0	0		0			0		0	0	0	0	0	0
Indonesia	0	0		0		0			0		0			0
Kiribati	0			0										
Malaysia				0	0						0			
Mongolia				0		0								
Myanmar														0
Nepal														0
Pakistan		0			0		0		0	0	0	0	0	0
Philippines							0		0	0	0			0
Sri Lanka					0		0		0					0
Thailand	0			0					0		0	0		
Timor Leste				0			0				0			
Vietnam										0	0	0		0
<b>Total</b>	<b>38</b>	<b>23</b>	<b>6</b>	<b>33</b>	<b>32</b>	<b>20</b>	<b>39</b>	<b>22</b>	<b>25</b>	<b>51</b>	<b>22</b>	<b>42</b>	<b>13</b>	<b>33</b>

Sources	
0	Demeke, et al. (2009) (81 developing countries)
0	FAO (2009a) (77)*
0	FAO (2010a) (31)
0	FAO (2010k) (42)*
0	FAO (2010l) (101)*
0	IMF country report (2009-10) (58)
*not all countries in these samples are developing	

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